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WARRANTY REGISTRATION
enviro.com/warranty

Enviro EG28 DV

BY: SHERWOOD INDUSTRIES LTD

OWNER'S MANUAL

PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

WHAT TO DO IF YOU SMELL GAS

- Open windows/Extinguish any open flame.
- Do not try to light any appliance.
- Do not touch any electrical switch or use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

This appliance may be installed in an after market permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

FOR YOUR SAFETY: Do not store or use gasoline or other Flammable vapours and liquids in the vicinity of this or any other appliance.

INTERTEK C Warnock Hersey US

Massachusetts installations (Warning): This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts. Other Massachusetts code requirements: Flexible connector must not be longer than 36in., a shut off valve must be installed; only direct vent sealed combustion products are approved for bedrooms/bathrooms. A carbon monoxide detector is required in all rooms containing gas fired direct vent appliances.

EG28-120

Safety Precautions

FOR SAFE INSTALLATION AND OPERATION OF YOUR "ENVIRO" HEATER, PLEASE CAREFULLY READ THE FOLLOWING INFORMATION:

- All ENVIRO gas-fired appliances must be installed in accordance with their instructions. Carefully read all the instructions in this manual first. Consult the building authority having jurisdiction to determine the need for a permit prior to commencing the installation.
- **NOTE:** Failure to follow these instructions could cause a malfunction of the fireplace, which could result in death, serious bodily injury, and/or property damage.
- Failure to follow these instructions may also void your fire insurance and/or warranty.

GENERAL

- Installation and repair should be done by a qualified service person. The appliance should be inspected before the first use and, annually thereafter by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative the control compartments, burners and circulating air passageways of the appliance be kept clean.
- Due to high temperatures, the appliance should be located out of high traffic areas and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

FOR YOUR SAFETY

- Installation and service must be performed by a qualified installer, service agency or gas supplier.
- This installation must conform to local codes or, in the absence of local codes, to the current CAN/CGA-B149 installation code (Canada) or National Fuel Gas Code ANSI Z223.1.2 (USA).
- To prevent injury, do not allow anyone who is unfamiliar with the stove to operate it.

- **To prevent injury, if the pilot or pilot and burners have gone out on their own, open the glass door and wait 5 minutes to air out before attempting to re-light the stove.**

- Always keep the area around this appliance clear of combustible material, gasoline and other flammable liquids and vapours.
- This appliance should not be used as a drying rack for clothing or for hanging Christmas stockings/ decorations.
- Due to the paint curing on the stove, a faint odor and slight smoking will likely be noticed when the stove is first used. Open a window until the smoking stops.

Always connect this gas stove to a vent system and vent to the outside of the building envelope. Never vent to another room or inside the building. Make sure the specified vent pipe is used; properly sized and of adequate height to provide sufficient draft. Inspect the venting system annually for blockage and signs of deterioration.

WARNING: Failure to position the parts in accordance with the diagrams in this booklet, or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

WARNING: Do not operate with the glass front removed, cracked or broken. Replacement of the glass must be done by a licensed or qualified service person.

- Never use solid fuels such as wood, paper, cardboard, coal, or any flammable liquids, etc., in this appliance.
- Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control or gas control systems that have been under water.
- Do not abuse the glass by striking it or slamming the door shut.

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Codes And Approvals

DIRECT VENT: This type is identified by the suffix DV. This appliance draws all of its air for combustion from outside the dwelling, through a specially designed vent pipe system.

This appliance has been tested and approved for installations from 0 feet to 4500 feet (1372 m) above sea level.

In the USA: The appliance may be installed at higher altitudes. Please refer to your American Gas Association guidelines which state: the sea level rated input of Gas Designed Appliances installed at elevations above 2000 feet (610 m) is to be reduced 4% for each 1000 feet (305 m) above sea level. Refer also to local authorities or codes which have jurisdiction in your area regarding the de-rate guidelines.

In Canada: When the appliance is installed at elevations above 4500 feet (1372 m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1000 feet (305 m).

- This appliance has been tested by INTERTEK (**Warnock Hersey**) and found to comply with the established VENTED GAS FIREPLACE HEATER standards in CANADA and the USA as follows:

VENTED GAS FIREPLACE HEATER (EG28 DV NG/LPG)

TESTED TO: ANSI Z21.88a-2003/CSA 2.33a-2003 VENTED GAS FIREPLACE HEATERS

CAN/CGA 2.17-M91 GAS FIRED APPLIANCES FOR HIGH ALTITUDES

CSA P.4.1-02 TESTING METHOD FOR MEASURING ANNUAL FIREPLACE EFFICIENCY

This ENVIRO EG28 DV Fireplace:

- Has been certified for use with either natural or propane gases. (See rating label.)
- Is not for use with solid fuels.
- Is approved for bedroom or bed sitting room. (**IN CANADA**: must be installed with a listed wall thermostat. **IN USA**: see current ANSI Z223.1 for installation instructions.)
- Must be installed in accordance with local codes. If none exist, use current installation code CAN/CGA B149 in Canada or ANSI Z223.1/NFPA 54 in the USA.
- Must be properly connected to an approved venting system and not connected to a chimney flue serving a separate solid-fuel burning appliance.
- Manufactured (mobile) home installation must be in accordance with the Manufactured Home Construction and Safety Standard, UL 307B, Title 24 CFR, Part 3280 and/or The Standard for Manufactured Home Installations, ANSI A225.1/NFPA 501A. The unit must be bolted to the floor of the mobile home and must be electrically grounded to the steel chassis.
- Are approved for installation on combustible materials (i.e. Wood, carpet or linoleum).
- Is not approved for closet or recessed installations.

IMPORTANT NOTICE (Regarding first fire up): When the unit is turned on for the first time, it should be turned onto high without the fan on for the first 4 hours. This will cure the paint, logs, gasket material and other products used in the manufacturing process. It is advisable to open a window or door, as the unit will start to smoke and can irritate some people. After the unit has gone through the first burn turn the unit off including the pilot, let the unit get cold then remove the glass door and clean it with a good gas fireplace glass cleaner, available at your local ENVIRO dealer.

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NFI

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We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

Specifications

Dimensions:

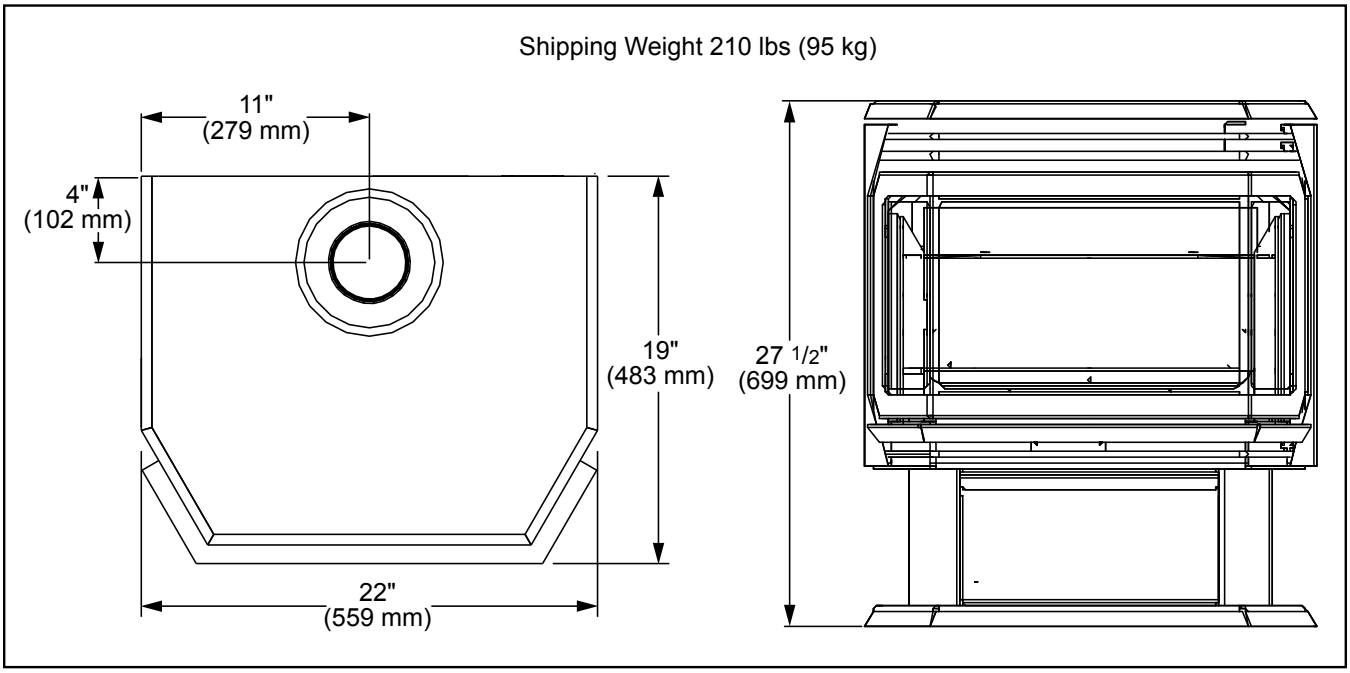


Figure 1: EG28 Exterior Dimensions.

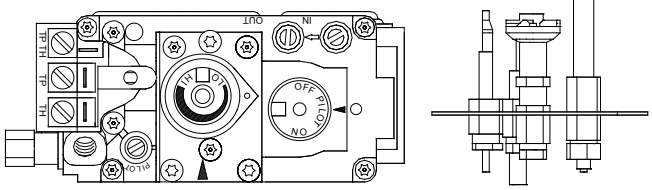
Rating Label Location:

The rating label is found inside the right cabinet side panel.

Operating Instructions

FOR YOUR SAFETY READ COMPLETELY BEFORE OPERATING.

Lighting Instructions:



CAUTION: **Hot while operating. Do not touch, severe burns may result. Keep children, clothing, furniture, gasoline or other flammable vapors away.**

CAUTION: Do not operate this fireplace with the glass removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified person! This appliance needs fresh air for safe operation and must be installed with provisions for combustion and ventilation air. See installation and operating instructions manual. Keep burner and control compartment clean.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage, or loss of life. Refer to owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier. See installation and operating instructions accompanying appliance. Installation and service must be performed by a qualified installer, service agency, or the gas supplier

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A) This appliance is equipped with a pilot, which must be lit by hand by following these instructions exactly.

B) BEFORE LIGHTING smell all around the appliance area for gas and next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:
Do not try to light any appliance. Do not touch any electrical switch: do not use any phone in your building. Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions. If you cannot reach your gas supplier, call the fire department.

C) Use only your hand to push in or turn the gas control knob; NEVER use tools. If the knob will not push in or turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D) Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn off all electrical power to this appliance.
3. Turn off the gas control knob clockwise ↷ to the off position.
4. Open door. Wait flve (5) minutes to clear out any gas. Close door. If you smell gas STOP! Follow “B” in the above safety information. If you do not smell gas go to the next step.
5. Find pilot-located to the right between the front and rear burner. Turn the gas control knob counter-clockwise ↶ to “PILOT”. Push the gas control in fully and hold, keep knob depressed for about 30 seconds after the pilot is lit. Release knob. If pilot goes out, repeat steps 4 through 5.

WARNING: this gas valve has a lockout device, which will not allow the pilot burner to be relit until the thermocouple has cooled. If the knob does does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot does not stay lit after several tries, turn the gas control knob to “OFF” and call your service technician or gas supplier.

6. Turn the gas control knob counter clockwise ↶ to the “ON” position. Flip the burner switch to “ON” THEN TURN THE “HI/LOW” knob to the desired setting.
7. Turn on the electrical power to the unit.

TO TURN OFF GAS TO APPLIANCE

1. Flip burner switch to “OFF”
2. Turn the gas control knob clockwise ↷ to the “OFF” position.
3. Turn off all electrical power to the appliance if service is to be performed.

Figure 2: Lighting Instructions.

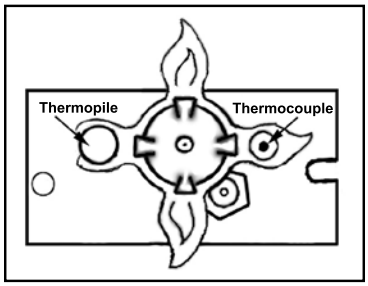


Figure 3: Pilot Burning.

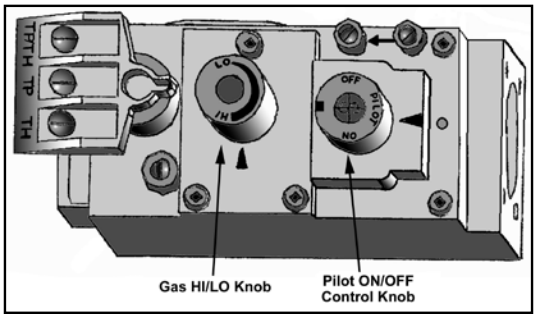


Figure 4: Gas Valve.

Adjusting The Venturies:

- Remove the ash shelf by undoing the screw at each end, pull shelf towards you.
- Remove one screw from the cover plate located below the ash shelf. Loosen the other screw (do not remove) swing the cover plate out of the way and tighten screw down to hold it in place.
- With along screwdriver rotate spring clips to open or close the shutter to the desired setting.

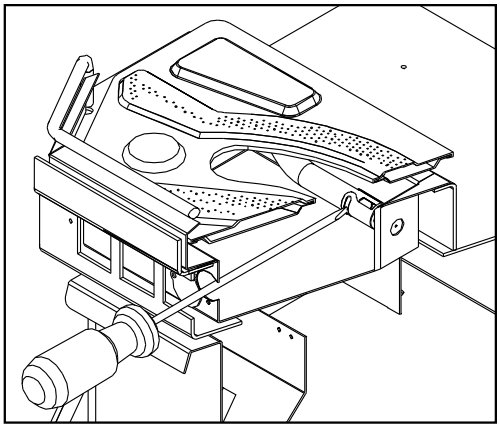


Figure 5: Venturi Adjustment.

The venturies allows the amount of air coming into the fireplace to be adjusted in order to accommodate different climates and venting arrangements. Start the pilot and then the burner. Make sure the pilot flame is burning normally and none of the burner ports are plugged. Let the fireplace burn for roughly fifteen minutes and then examine the flames, compare the flames to Figure 46.

The ideal flame will be blue at the base and light orange above. The flames should be of medium height. If the flames look like this, no venturi adjustment is needed. If the flames are fairly short and mostly blue, the fireplace is getting too much air. Therefore, the venturies should be closed slightly until the correct flames are achieved. Flames that are very orange, with tall, dark, stringy tips, are not getting enough air. Open the venturi until the flames clean up. If the venturi is opened, or closed all the way, and the correct flames cannot be attained, turn off the gas and contact the dealer.

Warning: Incorrect venturi adjustment may lead to improper combustion, which is a safety hazard. Contact the dealer if there is any concern about the venturi adjustment.

Table 1: Venturi Setting

	NG	LP
Venturi Setting	1/16" min.	¼" min.

Normal Sounds During Operation:

Table 2: Normal Sounds

Component	Sound & Reason
EG28	Creaking when heating up or cooling down.
Burner	Light pop or poof when turned off; this is more common with LP units.
Temperature Sensor	Clinking when it senses to turn the blower on or off.
Pilot Flame	Quiet whisper while the pilot flame in on.
Blower / Fan	Air movement that increase and decreases with the speed of the blower. The blower is pushing the heat from the fireplace into the room.
Gas Control Valve	Dull click when turning on or off, this is the valve opening and closing.

Maintenance and Service

Periodically check to ensure that your direct vent system is clean.

Periodically check the pilot and burner. Check to see that all the burner ports are clean and clear. Check the pilot head for blockage. Check to ensure the pilot flame is blue with no or very small yellow tips.

Opening The Door:

Turn unit off and wait until the appliance has cooled down.

1. Open the right hand hinged side flap, which will expose a door fastener. Using a ½" wrench, loosen the fastener.
2. Due to the shape of the bay window door. You must also open the left-hand side flap before attempting to open the door.
3. If the door must be removed open the door and lift the door pins out of the hinges (see figure 6).
4. Ensure the door is properly fastened after cleaning before attempting to re-light the appliance.

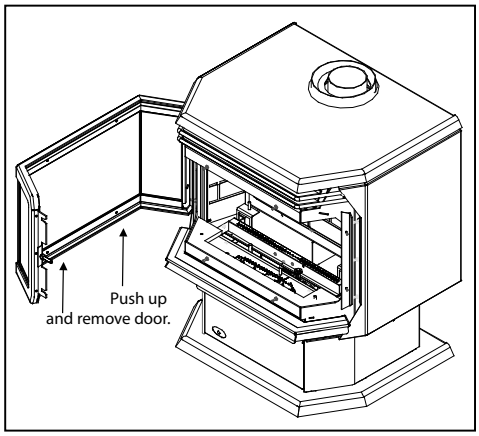


Figure 6: Removing the Door.

Cleaning The Glass:

Allow the glass to cool before cleaning. It will be necessary to clean the ceramic glass periodically. During a cold start up, condensation will sometimes form on the glass. This is a normal condition with all gas fireplaces and stoves. However, this condensation can allow dust and lint to cling to the glass surface. Initial paint curing of the appliance can leave behind a slight film on the glass. This is a temporary problem. It is therefore recommended that the glass be cleaned initially after about the first four hour of use. Depending upon the amount of use, cleaning should be required no more than two or three times per season. To clean the door, use a mild glass cleaner and a soft cloth or a glass cleaner available from your Enviro dealer. Abrasive cleaners will damage the glass.

To Replace Door:

The glass in this appliance is an integral part of the door assembly. If the glass is damaged or broken a replacement inner door with glass assembly must be purchased.

The glass in this appliance is ceramic. If the glass is damaged or broken a factory door with glass replacement must be used.

Remove the door with glass, a new door assembly must be purchased from an ENVIRO dealer (part #: EG28-103). **Do not use a substitute materials; it will void the warranty.**

Cleaning The Inside Of The Firebox:

1. Turn off the unit and allow it to cool down completely.
2. Remove the logs carefully from the firebox. Gently remove the embers and place on a piece of paper towel, until ready to replace.
3. Vacuum the bottom of the firebox thoroughly. Carefully clean off any dust on the logs and remove any lint from the main burner and pilot burner.
4. After carefully replacing the log and embers in their correct positions (see Secondary Installation - Installation of Log Set and Embers), and the door has been resealed, re-light the pilot, following the instructions on the lighting label attached to the unit.

Maintenance and Service

Cleaning Plated Surfaces:

It is important to note that fingerprints and other marks can leave a permanent stain on plated finishes. To avoid this, give the face a quick wipe with denatured alcohol on a soft cloth BEFORE lighting the fireplace. Never clean the face when it is not cool. Do not use other cleaners as they may leave a residue, which can become permanently etched into the surface.

Blower Removal:

The burner may need to be removed for a few reasons, including cleaning under the burner, converting the unit to a different gas type, or to replace the burner altogether. **Proceed only when the unit has completely cooled down.**

1. Remove the door as shown in the Maintenance and Service - Opening The Door.
2. Remove the two (2) T-20 screws that fasten the lower half of the burner bracket to the burner tray, located inside the large hole in the burner (see Figure 7). Do not remove the screws that fasten the upper half of the burner bracket to the burner.
3. Slide the burner to the left then lift the burner assembly up then out.

To re-install the burner follow steps 1-3 in reverse. When placing the burner back in the unit ensure that the venturi box under the burner is lined up.

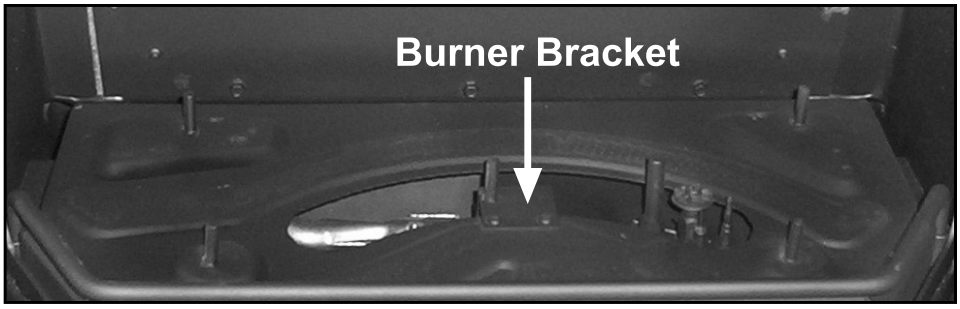


Figure 7: Blower (Fan) Removal.

Blower Removal:

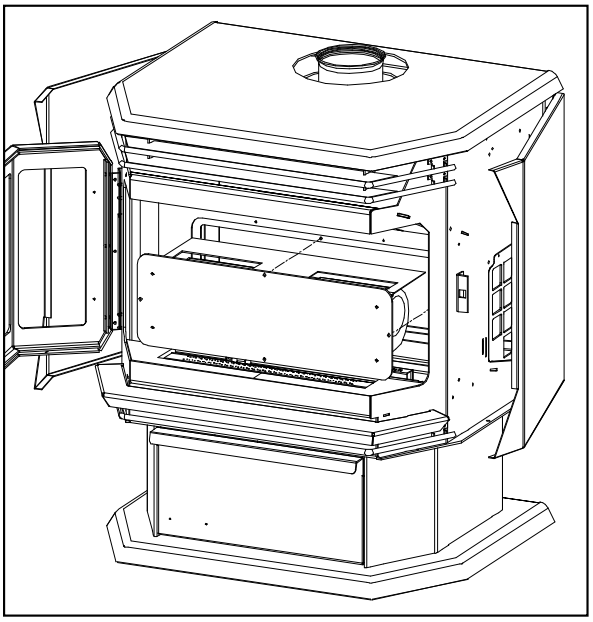


Figure 8: Blower (Fan) Removal.

1. Turn the unit off, allow it to cool down completely, and remove the door as shown in the Maintenance and Service - Opening The Door..
2. Remove the log set carefully.
3. Remove the burner tray assembly, see Maintenance and Service - Burner Removal.
4. Remove the four (4) 5/16" bolts that hold the blower mounting plate to the back firewall. Use a light lubricating oil on screws before removal.
5. Carefully pull the blower assembly into the firebox (see Figure 8) disconnect the blower leads from the harness and remove blower.
6. To re-install, check mounting plate gasket if damaged replace with new one and reverse steps 1 through 4. Refer to "Secondary Installation - Log Set and Embers Installation".

Fuel Conversion:

TO BE INSTALLED BY A QUALIFIED SERVICE AGENCY ONLY

Please read and understand these instructions before installing.

Warning: This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper or complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

Kit Parts List:

1 - Orifice (NG - #43 DMS or LP - #53 DMS)

1 - Pilot Injector (NG 0.62 mm; LP 0.35 mm)

1 - Installation instruction sheet

1 - Conversion label

Carefully inspect all parts supplied with this conversion kit. If any parts have been damaged or are missing, contact your dealer, distributor or courier company to have them replaced before starting this installation.

Conversion Kit Installation:

1. Turn control knob on the gas valve to the "OFF" position and shut the gas supply off at the shut-off valve upstream of the unit. CAUTION: The gas supply must be shut off prior to disconnecting the electrical power and before proceeding with the conversion. Allow the valve and unit to cool down to room temperature.
2. Remove the glass as shown in the Maintenance and Service - Opening The Door.
3. Carefully remove the log set and ember material if they are installed.
4. Remove the burner as shown in the Maintenance and Service - Burner Removal.
5. Convert the burner orifice(s):
   a) Remove the main burner orifice with a ½ inch deep socket.
   b) Put a bead of pipe-thread sealant or approved Teflon tape on the orifice threads before installing into the brass elbow.
   c) Install the new orifice(s) from the kit into the brass elbow.
6. Convert the pilot injector:
   a) Pull the pilot hood straight up to access the pilot injector.
   b) Using a $^{5}/_{32}$" or 4 mm Allen key, remove the pilot injector.
   c) Install the new pilot injector supplied with this conversion kit. Simply screw the new injector inside the pilot hood using the Allen key,
   d) Reinstall the hood by placing the hood on the assembly, line up the key way, and snap into place.

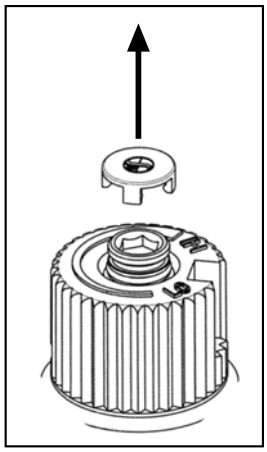


Figure 9: Removing valve cap.

7. Convert the SIT gas valve:
   a) Remove the black protection cap from the HI/LO knob by hand shown in Figure 9.

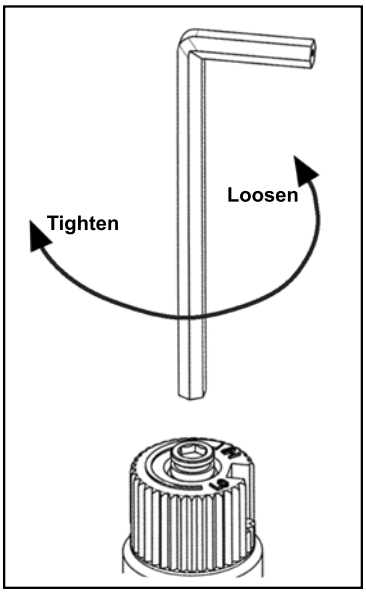


Figure 10: Removing valve screw.

   b) Insert a $^{5}/_{32}$" or 4 mm Allen wrench into the hexagonal key-way of the screw (see Figure 10), rotate it counter-clockwise until it is free and extract it.
   c) Check that the screw is clean and if necessary remove dirt.
   d) Flip the screw (refer to Figure 11).
   e) Using the Allen wrench as shown in Figure 10, rotate the screw clockwise until a torque of 9 inch lbs. **WARNING!** Do not over tighten the screw. It is recommended that you grip the wrench by the short side.
   f) Verify that if the conversion is from NG to LPG, the screw must be re-assembled with the red o-ring visible (refer to Figure 12). If the conversion is from LPG to NG, the red o-ring of the screw must be not visible.

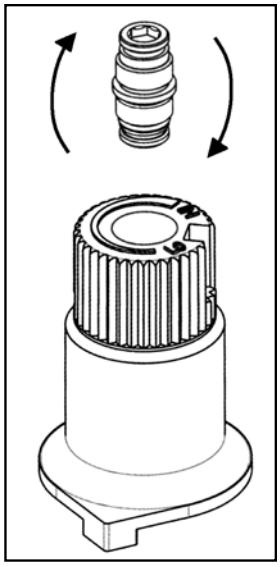


Figure 11: Flip valve screw.

   g) Re-attach the black protection cap that was removed in step a (Figure 9).

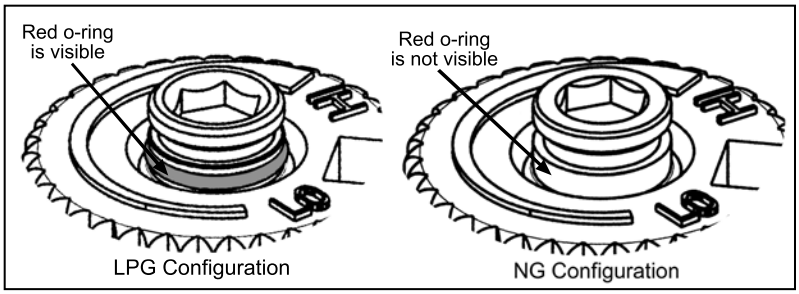


Figure 12: O-ring on valve screw.

8. Reinstall the burner, brick panels, log set, embers, and glass door. Also refer to Secondary Installation - Installing Log Set and Embers. When re-installing the burner, ensure that the pilot hood in in line with the small hole at the edge of front and rear burner. On some units you will need to pay special attention when installing the burner that the venturi adjustment rod is properly installed into the venturi adjustment piece welded to the burner venturi tube
9. Reconnect the main gas line if it was disconnected and open the shut-off valve at the gas line to the unit.
10. Use a small brush to apply a warm soapy water solution to all gas connections (use a half dish soap and half warm water). If a gas leak is present, bubbling will occur. Gas leaks can be repaired by using an approved pipe thread sealant or approved Teflon tape. NEVER USE AN OPEN FLAME WHEN TESTING FOR LEAKS.
11. Reconnect the electrical power to the unit.
12. Relight the main burner in both the "HI" and "LO" positions to verify proper burner ignition and operation and proper flame appearance. Also refer to Secondary Installation - Log Set and Embers Installation for a flame appearance picture.
13. MAKE SURE that the conversion label is installed on or close to the rating label to signify that the unit has been converted to a different fuel type.

Initial Installation

QUALIFIED INSTALLERS ONLY

WARNING:

Operation of this heater when not connected to a properly installed and maintained venting system can result in carbon monoxide (CO) poisoning and possible death.

Preparation For Installation:

- Remove the packaging from the appliance, and check to make sure there is no damage. If damage is found, please report it to both the carrier and your dealer as soon as possible.
- Before beginning, carefully check the glass door and the log set
- Locate a position where the flue system of the stove can be properly installed without damaging the integrity of the building; e.g. cutting a wall or ceiling joist.
- Check stove and flue system clearance requirements.
- Locate the stove where it can be accessed by a gas supply line.
- Locate the stove in a large and open room that is centrally located in the house. This will optimize heat circulation and comfort.
- As the stove is equipped with a convection fan, ensure that an electrical outlet is within 6 ft (1.8 m) of the stove.
- The flow of combustion and ventilation air must not be obstructed.

Clearances to Combustibles:

A. Sidewall to unit	10 inches	(25.4 cm)
B. Backwall to unit	4 inches	(10.2 cm)
C. Corner to unit	2 inches	(5.1 cm)
D. Combustibles to unit top	22 inches	(55.9 cm)
E. Floor to unit	0 inches	(0 cm)
F. Alcove maximum depth:	48 inches	(121.9 cm)

CLEARANCES MUST BE SUFFICIENT TO ALLOW ACCESS FOR MAINTENANCE AND SERVICE.

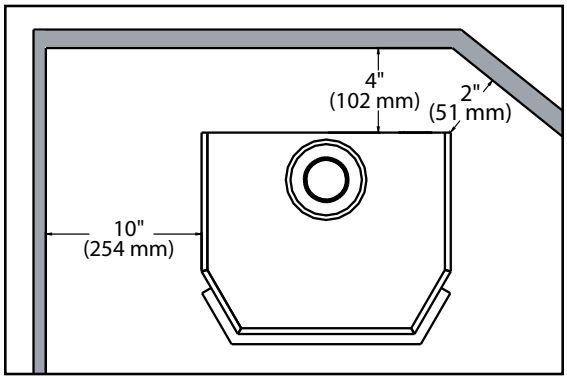


Figure 13: Clearances to combustibles.

Initial Installation

QUALIFIED INSTALLERS ONLY

Planning Your Installation:

When planning your installation, it will be necessary to select the proper length of vent pipe for your particular requirements. It is important to note when passing through a wall, the maximum allowable wall thickness is 10 inches (25.4 cm), 1½ inches (3.8 cm) clearance to combustibles must be maintained. Select the amount of vertical rise desired for "vertical-to-horizontal" type installations. To determine the length of vent pipe required for vertical installations, measure the distance from the appliance flue outlet to the ceiling, the ceiling thickness, the vertical rise through the attic or second story, and allow for sufficient vent height above the roof line. For two story applications, a fire stop is required at each floor level. If an offset is needed in the attic, additional pipe and elbows will be required. To connect the venting system to the appliance flue outlet, a twist-lock adapter is built into the appliance at the factory. Refer to 'Vent Configuration and Restrictor Settings' for venting parameters.

Your total vent pipe length must be within the shaded area of Figure 22. If a 90° elbow is used in the horizontal plane, 36" (91.4 cm) must be subtracted from the allowable horizontal run.

There are two (2) basic types of Direct Vent System installationsa and they are shown below.

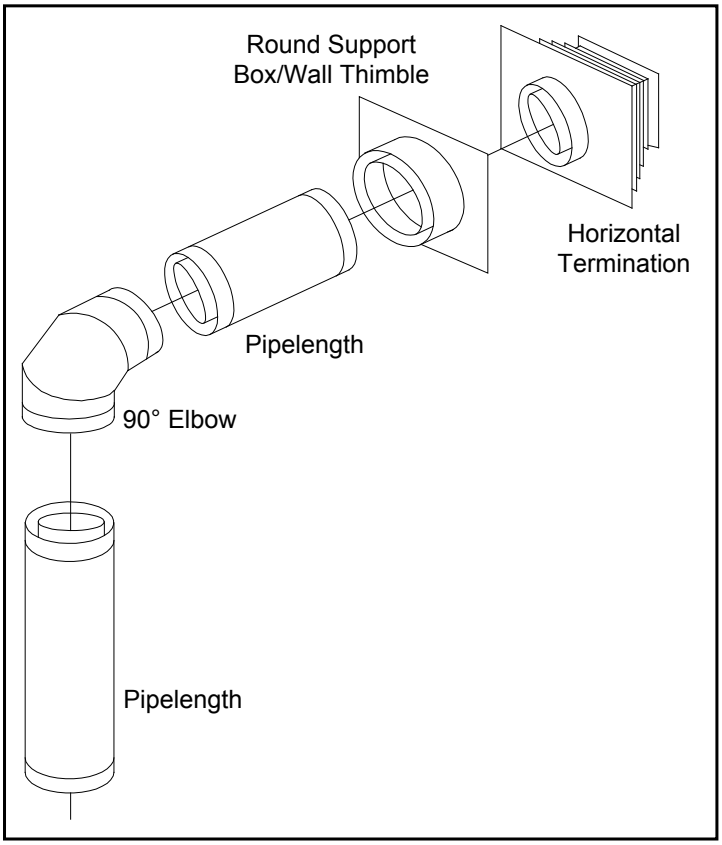


Figure 14: Common Horizontal Installation.

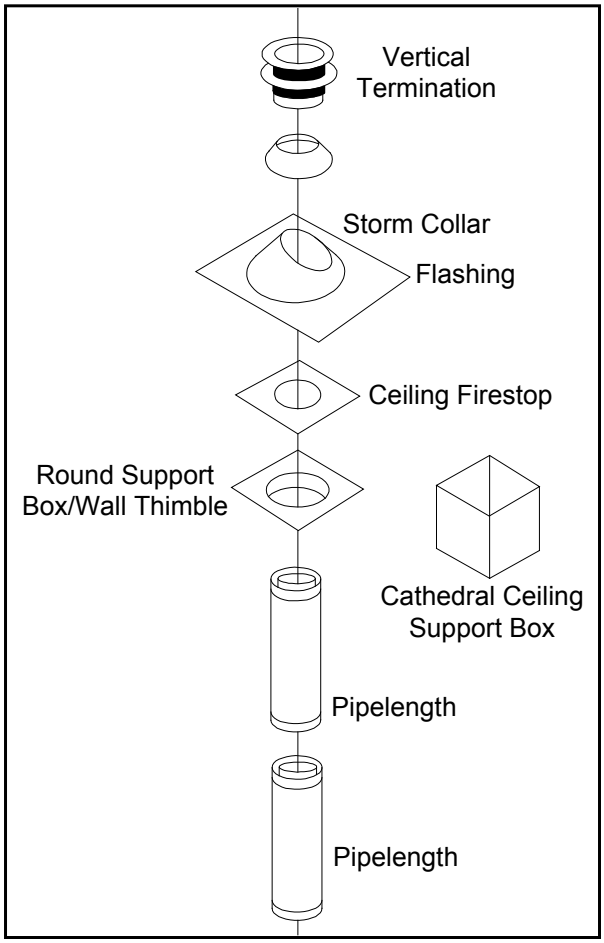


Figure 15: Common Vertical Installation.

Initial Installation

QUALIFIED INSTALLERS ONLY

Corner Installations:

Do not interfere with the structural integrity of the walls.

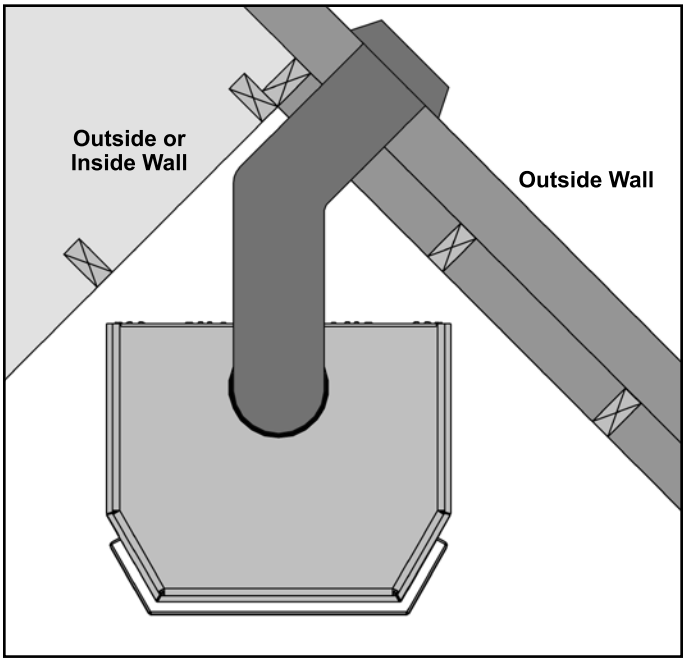


Figure 16: Corner installation top vented.

Mobile Home Installation:

- When the unit is installed in a Mobile Home it must be grounded to the steel chassis or connected to a grounding rod.
- In a Mobile Home installation the unit must be bolted securely to the floor using the holes provided (see Figure 17).
- Manufactured (mobile) home installation must be in accordance with the Manufactured Home Construction and Safety Standard, UL 307B, Title 24 CFR, Part 3280 and/or The Standard for Manufactured Home Installations, ANSI A225.1/NFPA 501A

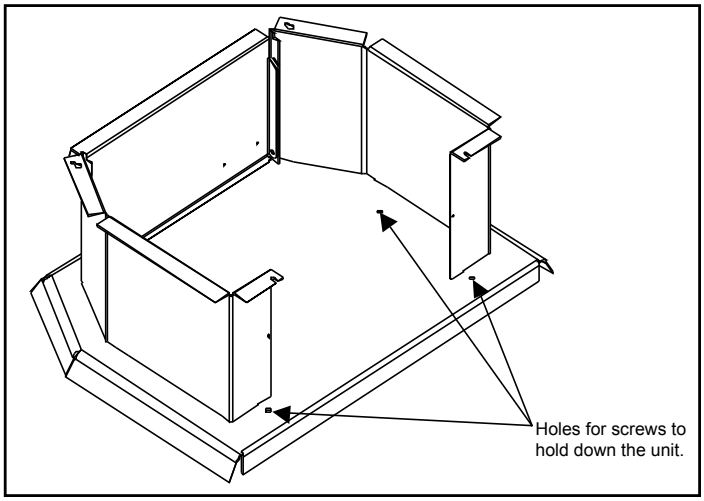


Figure 17: Screw the pedestal down for mobile homes.

Initial Installation

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Vent Termination Restrictions:

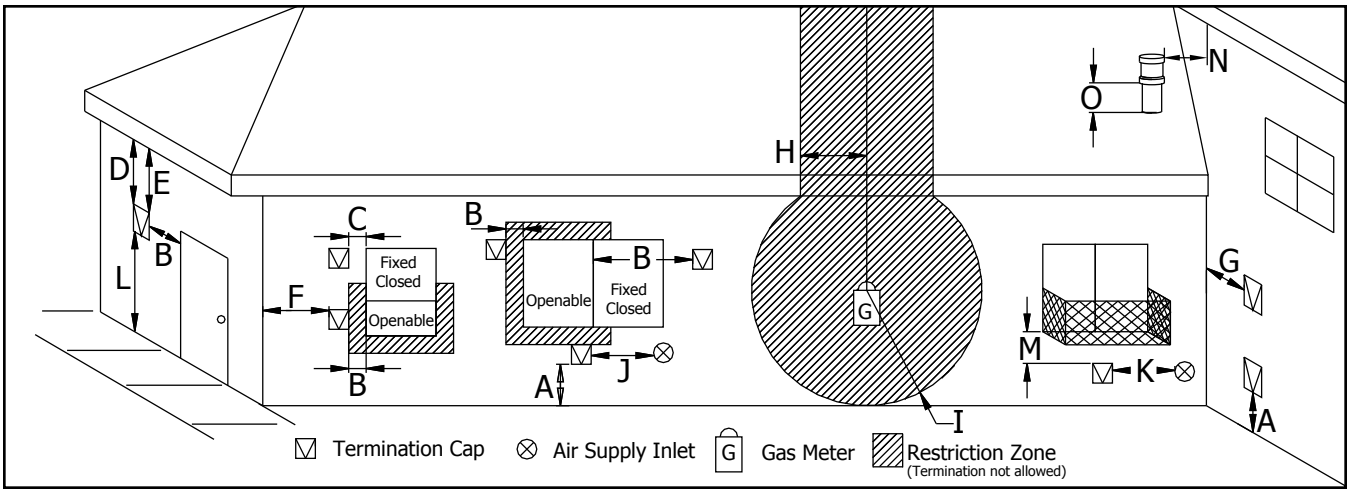


Figure 18. Vent Termination Restrictions, refer to Table 3.

Table 3: Vent termination clearances, refer to Figure 18.

Letter	Canadian Installation [1]	US Installation[2]	Description
A	12 in (30 cm)		Clearance above grade, verandah, porch, deck, or balcony.
B	12 in (30 cm)	9 in (23 cm)	Clearance from window or door that may be opened.
C	12 in (30 cm)*		Clearance from permanently closed window (to prevent condensation).
D	24 in (60 cm)*		Vertical clearance to ventilated soffit located above the terminal, within a horizontal distance of 2 ft (60 cm) from center line of terminal.
E	18 in (45 cm)*		Clearance to unventilated soffit.
F	12 in (30 cm)*		Clearance to outside corner.
G	12 in (30 cm)*		Clearance to inside corner.
H	3 ft (91 cm) within a height of 15 ft (4.5 m) above the meter/ regulator assembly	3 ft (91 cm) within a height of 15 ft (4.5 m) above the meter/ regulator assembly*	Clearance to each side of center line extended above meter/regulator assembly.
I	3 ft (91 cm)	3 ft (91 cm)*	Radial clearance around service regulator vent outlet.
J	12 in (30 cm)	9 in (23 cm)	Clearance to non-mechanical air supply inlet to building, or the combustion air inlet to any other appliance.
K	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally	Clearance to mechanical air supply inlet.
L	7 ft (2.13 m)[t]	7 ft (2.13 m)*[t]	Clearance above paved sidewalk or paved driveway located on public property.
M	12 in / 30 cm[+]	12 in / 30 cm*[+]	Clearance under verandah, porch, deck, or balcony.
N	12 in (30 cm)*		Clearance horizontally to any surface (such as an exterior wall) for vertical terminations.
O	12 in (30 cm)		Clearance above roof line for vertical terminations.

[1] In accordance with the current CSA B149, Natural Gas and Propane Installation Code.
[2] In accordance with the current ANSI Z223.1 NFPA 54, National Fuel Gas Code.
* These numbers are only estimates. Clearance in accordance with installation codes and the requirements of the gas supplier.
[t] A vent shall not terminate directly above a side walk or paved driveway that is located between two single family dwellings and it serves both dwellings.
[+] Permitted only if verandah, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

NOTE: Venting terminals shall not be recessed into walls or siding.

Initial Installation

QUALIFIED INSTALLERS ONLY

Freestanding Direct Vent Kit With Coupler:

KIT COMPONENTS:

Quantity	Description	Quantity	Description
1	Horizontal direct vent termination cap	1	Wall Thimble
2	Flue collar adapters (only one used)	4	Wire spacers
4	T-20 Torx screws	3	Decorative rings
1	Ø6⅝" (17 cm) 90° elbow	1	4 oz tube RTV silicone
1	Inside finish trim collar	20	9/16" tech screws
1	5' (190cm) length of Ø4" (10cm) double walled flex pipe	8	1½" wood screws
2	24" (61cm) section of Ø6⅝" (17cm) straight pipe	1	Vinyl siding deflector

Please ensure that all components are supplied with this kit. If components are missing or have been damaged, contact your dealer, distributor, or courier company. Do not attempt the installation if components are missing or damaged.

INSTALLATION INSTRUCTIONS:

1. Decide on a location for the unit that will meet any or all local code requirements. Refer "Planning Your Installation" and "Clearances to Combustibles".
2. Set the appliance in the desired location. Determine if any wall studs, electrical wiring, or plumbing pipes are in the way of the venting system as it passes through the wall. If obstructions are found in the wall it may be necessary to adjust the location of the appliance.
3. Set the appliance in the desired location. Temporarily place a 24" (61 cm) section with the non-crimped end on the unit
4. Install the 90° elbow onto the vertical pipe on the stove pointing in the direction that the vent will exit the structure.

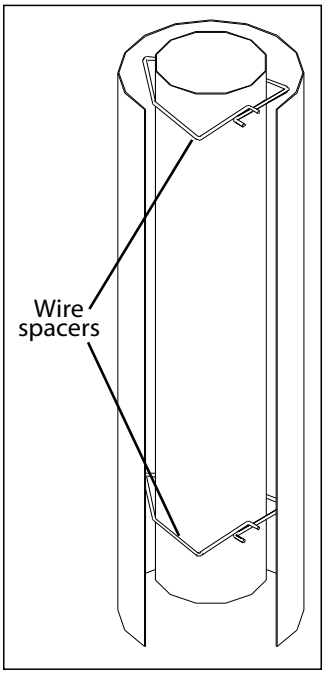


Figure 19: Wire Spacers.

5. Project a level line from the center point of the elbow. Using this center point, scribe a 10" (25.4 cm) hole or square on the wall. Cut the hole out on both the interior and exterior wall surface.
6. Frame the hole as shown in Figure 25.
7. Install the wall thimble and secure the thimble to the inner wall surface.
8. With the appliance still in place install the 24" (61 cm) horizontal section on the elbow and let this section of pipe protrude through the exterior surface. Mark the pipe so that when it is cut it will be flush with the exterior wall.
9. Dismantle the outer pipe sections.
10. Remove the 4" (10 cm) flue collar from the unit and remove any loose sealant. Install the new Ø 4" (10 cm) by 5" (12.5 cm) flue collar provided in this kit.

Figure 20: Wire Spacer in Place.

11. Stretch the liner out. Attach the flexible liner to the vent termination cap by placing a small bead of high temperature silicone on the vent termination and slide the flex liner onto the vent terminal and secure with three (3) sheet metal screws evenly spaced.
12. Dress the flex liner through the wall thimble and attach the vent terminal to the outside of the house using four (4) wood screws provided. The use of non-hardening mastic should be used around the vent to ensure a watertight seal.
13. Install two (2) wire spacer around the flex pipe. Slide the horizontal section of pipe over the flexible liner. Ensure the wire spacers are positioned at either end of the pipe (refer to Figure 19 and 20).
14. Install the horizontal section of pipe through the wall thimble, ensure that this portion of pipe slides onto the vent termination cap.
15. Slide the inside finished collar over the horizontal section of pipe and secure to wall using the screw provided.

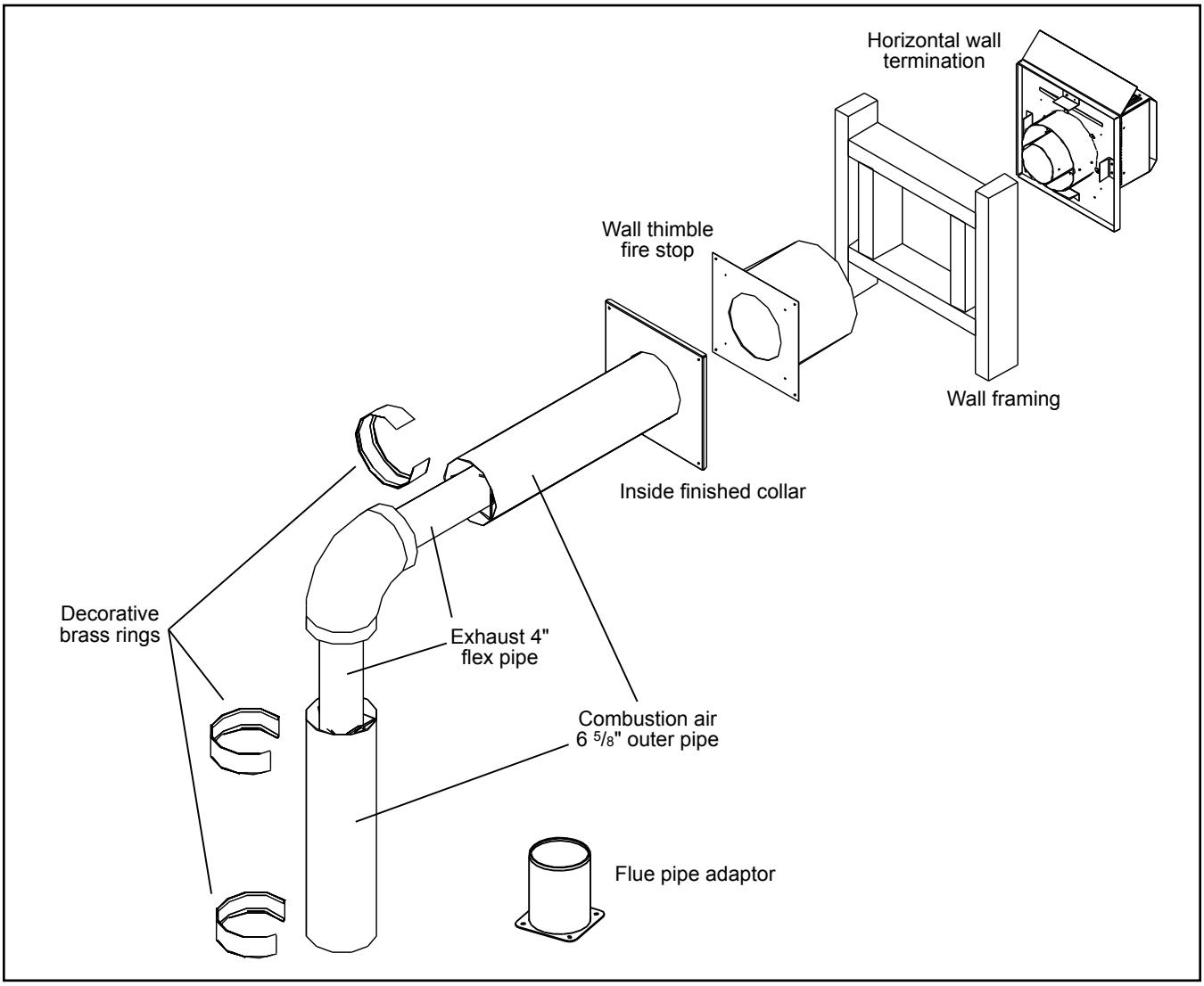


Figure 21: Assembly of Venting Kit.

16. Slide the 90° elbow over the flex pipe. **Do not slip the outer sections of pipe together, you will require some movement in these pipe section in order to secure the flex pipe to the flue outlet on the appliance.**
17. Stretch the flex liner to a length long enough to ensure the flex liner can be easily connected to the flue outlet of the appliance.
18. Install the remaining wire spacers over the flexible liner and install the vertical section of pipe. Ensure the wire spacers are positioned at either end of the pipe (refer to Figure 19 and 20).
19. Place a bead of high temperature silicone on the flue pipe and slide the flex liner over the collar, secure the flex liner with three (3) sheet metal screws evenly spaced.
20. Align all straight sections of pipe, slipping all joints together and installing with three (3) sheet metal screws evenly spaced.
21. Install the brass decorative rings around each joint making sure this decorative ring covers the sheet metal screws that secure each section of pipe together and secure to vent pipe in the slotted tab on the backside of the pipe so that the fastener would not be seen.
22. Secure the horizontal section of pipe to the inside finished collar by installing a screw in the tab on the inside finished collar. This will prevent the pipe from being disconnected at the vent terminal.
23. Light the appliance and ensure proper operation.

Other Approved Vent Parts:

Table 3: Approved Vent Manufacturers

Manufacturer	Trade Name	Nominal Sizes
American Metal Products	AmeriVent Direct	4” - 6 5/8”
Security Chimneys International LTD	Secure Vent	4” - 6 5/8”
Selkirk Metalbestos	Direct-Temp	4” - 6 5/8”
Simpson Dura-Vent	Direct Vent GS	4” - 6 5/8”

The EG28DV fireplace has been tested and certified for use with AMERICAN METAL PRODUCTS “AMERIVENT DIRECT”, SIMPSON DURAVENT TYPE GS PIPE FOR GAS STOVES. SECURITY CHIMNEY’S “SECURE VENT DIRECT VENT SYSTEM” and SELKIRK “DIRECT-TEMP VENT SYSTEM” kits are available for horizontal and vertical venting. When using Simpson Duravent, it is recommended that, before installation, a bead of RTV High Temperature Silicone should be applied to each outer vent joint, and Mil-Pac to each inner joint. When planning an installation, it will be necessary to select the proper length of vent pipe for the particular requirements.

WARNING: Do not mix parts from different vent manufacturers’ systems.

EXCEPTION TO WARNING: This product has been evaluated by Intertek for using a Direct Vent GS starting collar in conjunction with Secure Vent, Direct-Temp, and Ameri Vent Direct venting systems. Use of these systems with the Direct Vent GS starting collar is deemed acceptable and does not affect the Intertek WH listing of the appliance.

Table 4: Vent part numbers (Must state if galvanized or black wanted, PART NUMBERS).

Direct Vent GS	Direct-Temp	Secure Vent	Ameri Vent Direct	Description
908	4DT-6	SV4L6		6" pipe length
			4D7	7" pipe length
907	4DT-9			9" pipe length
906	4DT-12	SV4L12	4D12	12" pipe length
904	4DT-24	SV4L24	4D2	24" pipe length
903	4DT-36	SV4L36	4D3	36" pipe length
902	4DT-48	SV4L48	4D4	48" pipe length
945	4DT-EL45	SV4EBR45	4D45B	45° elbow, black
990	4DT-EL90	SV4EBR90	4D90B	90° elbow, black
950	4DT-VS	SV4VS		Vinyl siding standoff/sheild
942	4DT-WT	SV4RSN	4DWT	Wall thimble
953	4DT-SC	SV4FC	4DSC	Storm collar
963	4DT-FS	SV4BF	4DFSP	Fire stop
988	4DT-WS/B	SV4BM	4DWS	Wall strap/support/band
970	4DT-HKA	SV0SHK	4DHTK1	Horizontal termination kit (SD: Basic Kit, SEL: Kit A, SC: Standard Kit)
911				11" to 14 ⅝" pipe, adjustable
	4DT-AJ		4D12A	4" to 10" pipe , adjustable
		SV4LA12		1½" to 12" pipe , adjustable
943	4DT-AF6		4DF	Flashing, 0/12 to 6/12 roof pitch
943S	4DT-AF12		4DF12	Flashing, 7/12 to 12/12 roof pitch
		SV4FA		Flashing, 1/12 to 7/12 roof pitch
		SV4FB		Flashing, 8/12 to 12/12 roof pitch
943F		SV4F		Flat flashing
980	4DT-VC	SV4CGV	4DVC	Vertical termination
991	4DT-HVC			High wind vertical termination
984	4DT-HC	SV4CHC	4DHC	Horizontal square termination
985	4DT-HHC			High wind horizontal termination
978	4DT-VKC	SV0FAK	4DVTK	Vertical termination kit
971	4DT-HKB	SV0SHK2	4DHTK2	Horizontal termination kit (SD: Kit A, SEL: Kit B, SC: Kit)

Initial Installation

QUALIFIED INSTALLERS ONLY

Vent Configurations:

Figures 22 shows the range of venting options, it shows possible vent configurations if the unit is top vented, for vertical and horizontal terminations, any layout that remains within the shaded area is acceptable. Having the fewest number of elbows is ideal, as they tend to disrupt air movement. Using 45˚ elbows is preferable to using 90˚ elbows. Also, a shorter vent system will perform better than a longer one.

NOTE: The total length of the vent pipes can not exceed 33 feet (10.1 m). Any combination of rise and run can be used as long as it lays within the shaded area (a total of three (3) 90° elbows or six (6) 45° elbows can be used). In addition to what is shown, if a 90° elbow is used in the horizontal plane, 3 feet (91.4 cm) must be subtracted from the allowable horizontal run (for each 45° elbow, 1½ feet must be subtracted from the allowable horizontal run).

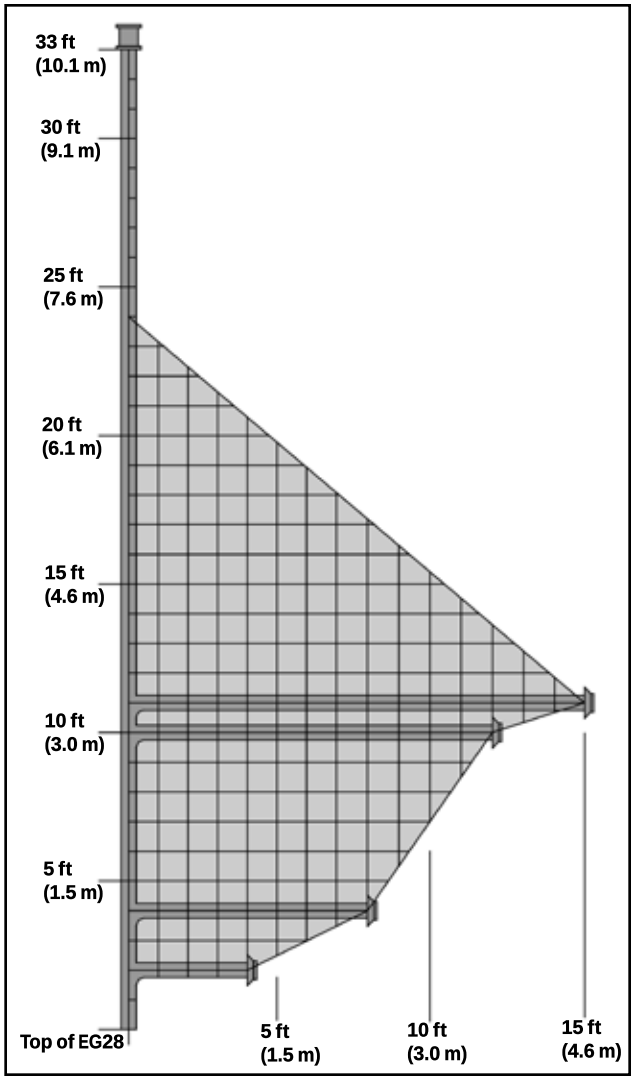


Figure 22. Possible Vent Configurations; Vertical and Horizontal Terminations.

Vent Restrictor Ring:

A vent restrictor ring is supplied with each direct vent fireplace. This restrictor ring is to be installed when the vertical chimney installation is over 15 feet (4.57 m). Before the chimney is placed onto the stove, place this vent restrictor ring into the 4 inch (10.2 cm) flue pipe (as shown), once the vent restrictor ring has been installed, the vertical sections of chimney can be installed.

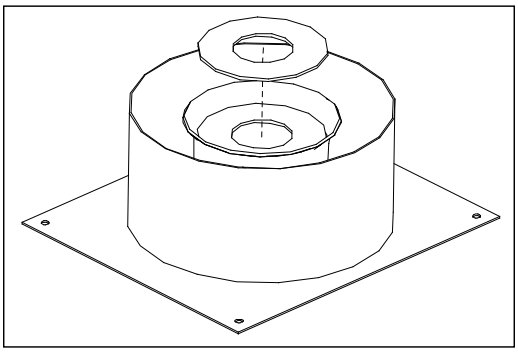


Figure 23: Vent restrictor ring.

Initial Installation

QUALIFIED INSTALLERS ONLY

Horizontal Installation:

1. Set the appliance in the desired location. Check to determine if wall studs or roof rafters are in the way when the venting system is attached. If this is the case, you may want to adjust the location of the appliance.

2. Direct vent pipe and fittings are designed with special twist-lock connections. Assemble the desired combination of black pipe and elbows to the appliance adapter with pipe seams oriented towards the wall or floor, as much out of view as possible.

Place a bead of Mil-Pac on the outer edge of the inner exhaust pipe (non-flared end). Place a bead of high temperature silicone on the male edge of the outer pipe. Push the pipe sections completely together, then twist-lock one section clockwise approximately ¼ turn, until the two sections are fully locked. The female locking lugs will not be visible from the outside, on black pipe. They may be located by examining the inside of the female ends as shown in Figure 23.

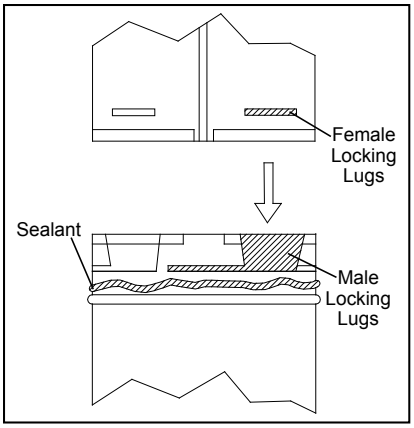


Figure 24: Twist-Lock Connection

Notes:

- Twist-lock procedure: four (4) indentations, located on the female end of the pipes and fittings, are designed to slide straight onto the male ends of adjacent pipes and fittings, by orienting the four pipe indentations so they match and slide into the four entry slots on the male end.
- Horizontal runs of vent pipe must be supported every three ft. Wall straps are available for this purpose, also when running horizontal pipe minimum clearances to combustibles must be maintained; **2 inches (5.1 cm) at top, 1½ inches (3.8 cm) at sides, 1½ inches (3.8 cm) at bottom.**

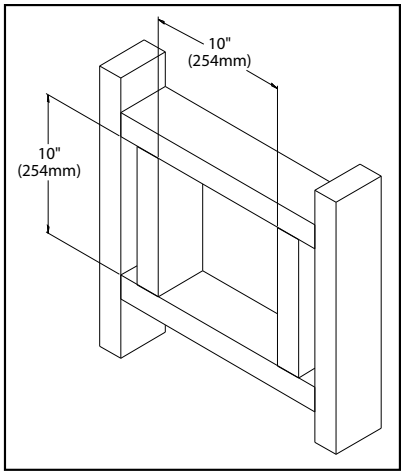


Figure 25: Wall Framing Hole for Horizontal Installation.

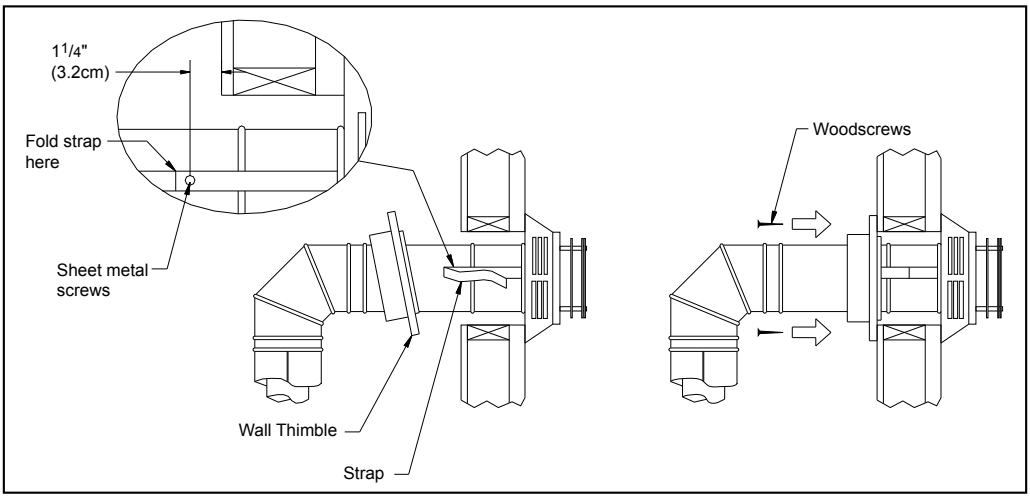


Figure 26: Installing Decorative Wall Thimble.

3. With the pipe attached to the stove in the correct location, mark the wall for a 10" (25.4 cm) x 10" (25.4 cm) square hole (refer to Figure 25). The center of the square hole should match the center line of the horizontal pipe. Cut and frame the 10" (25.4 cm) x 10" (25.4 cm) hole in the exterior wall where the vent will be terminated. If the wall being penetrated is constructed of non-combustible material i.e. masonry or concrete, a 7 inches (17.8 cm) hole is acceptable.

QUALIFIED INSTALLERS ONLY

4. Position the horizontal vent termination in the center of the 10" (25.4 cm) x 10" (25.4 cm) hole, and attach to the exterior wall with the four screws provided. Before attaching the vent termination to the exterior wall, run a bead of non-hardening mastic around the edges, so as to make a seal between the termination and the wall. The arrow on the vent termination should be pointing up, insure that the proper clearances to combustible materials are maintained.

5. Before connecting the horizontal run of the vent pipe to the vent termination, slide the black decorative wall thimble cover over the vent pipe.

6. Slide the appliance and vent assembly towards the wall, carefully inserting the vent pipe into the cap assembly. It is important that the vent pipe extend into the vent cap a sufficient distance with a minimum of 1¼" (3.2 cm) overlap. Secure the connection between the vent cap pipe and the vent cap by attaching the two sheet metal straps extending from the vent cap assembly into the outer wall of the vent pipe. Use the two sheet metal screws provided to connect the straps to the vent pipe. Bend any remaining portion of the sheet metal straps back towards the vent cap, so the decorative wall thimble will conceal it (see left image in Figure 26).

7. Slide the decorative wall thimble up to the wall surface and attach with the screws provided. Apply decorative brass or chrome trim if desired (see right image in Figure 26).

NOTES:

- The four wood screws provided should be replaced with the appropriate fasteners for stucco, brick, concrete, or other types of siding.
- For buildings with vinyl siding, a vinyl siding standoff, should be installed between the vent cap and the exterior wall (see Figure 27). Attach the vinyl siding standoff to the horizontal termination. The vinyl siding standoff prevents excessive heat from possibly melting the vinyl siding material. Note that the horizontal vent termination bolts onto the flat portion of the vinyl siding standoff (shaded area in Figure 27), so that an air space will exist between the wall and the vent termination.
- The horizontal run of vent pipe must be level and **should have a ¼ inch rise for every one foot of run towards the termination.** Never allow the vent to run downward. This could cause high temperature and may present the possibility of a fire.
- The location of the horizontal vent termination on the exterior wall must not be easily blocked or obstructed. Refer to "Initial Installation - Vent Termination Restrictions" section.
- When installing a vent pipe in a chase the minimum clearance to combustibles is 2" (5 cm).

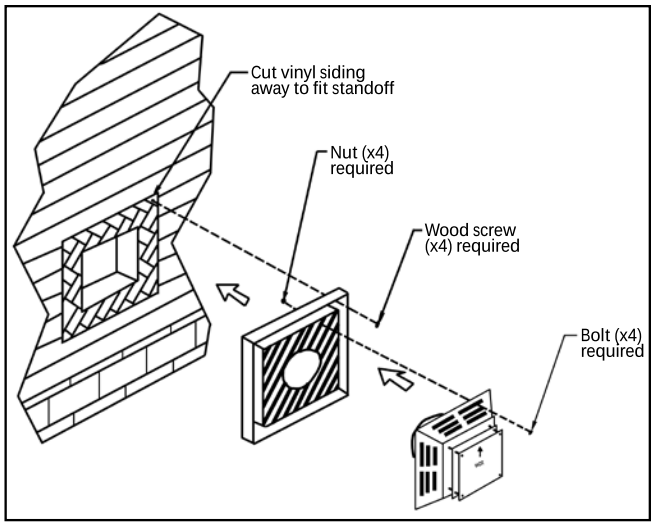


Figure 27: Installing Vent Cap with Vinyl Siding Stand-Off.

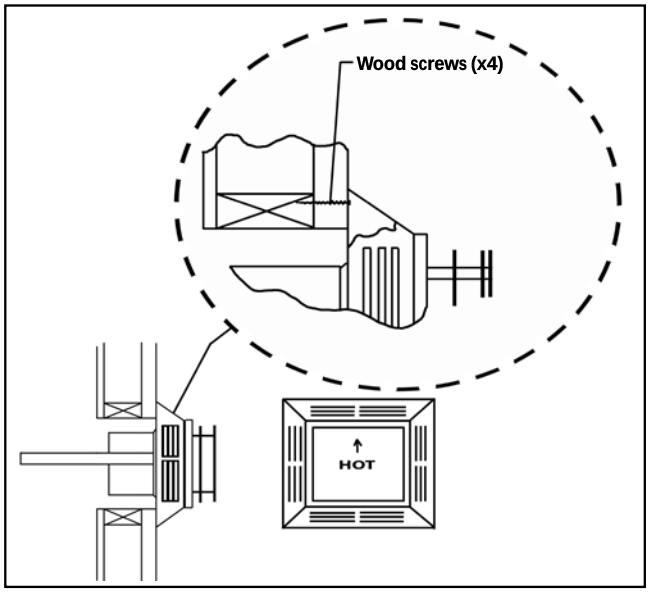


Figure 28: Installing Horizontal Vent Termination.

Initial Installation

QUALIFIED INSTALLERS ONLY

Vertical Installation:

1. Check the instructions for required clearances (air spaces) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, or other nearby combustible surfaces. Do not pack air spaces with insulation.

2. Set the gas appliance in the desired location. Drop a plumb bob down from the ceiling to the position of the appliance flue exit, and mark the location where the vent will penetrate the ceiling. Drill a small hole at this point. Next, drop a plumb bob from the roof to the hole previously drilled in the ceiling, mark the spot where the vent will penetrate the roof. Determine if ceiling joists, roof rafters, or other framing will obstruct the venting system. You may wish to relocate the appliance, or to offset, to avoid cutting load bearing members.

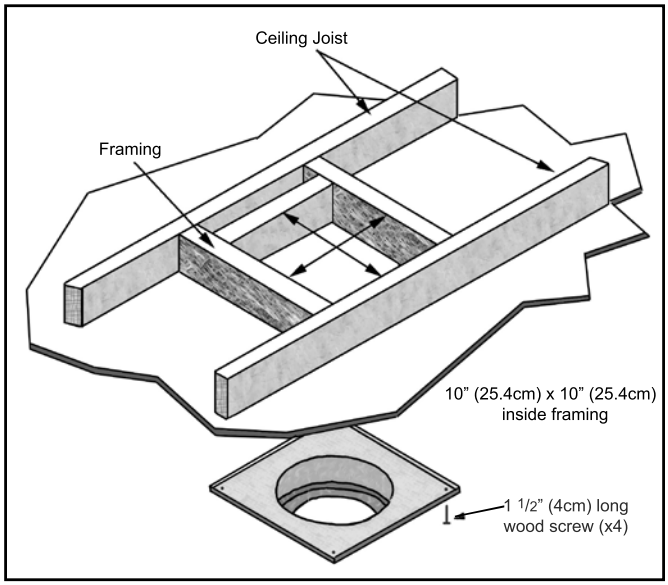


Figure 29: Wall Framing for 10" (25.4 cm) x 10" (25.4 cm) Hole for Vertical Installation.

3. To install the Round Support Box/Wall Thimble in a flat ceiling, cut a 10 inch (25.4 cm) square hole in the ceiling, centered in the hole drilled in Step 2. Frame the hole as shown in Figure 29.

4. Assemble the desired lengths of black pipe and elbows necessary to reach from the appliance adapter up through the Round Support Box. Insure that all pipe and elbow connections are in their fully twist-locked position.

5. Cut hole in the roof centered on the small hole placed in the roof from Step 2. The hole should be of sufficient size to meet minimum requirements for Clearance to Combustibles, as specified. Continue to assemble lengths of pipe and elbows necessary to reach from the ceiling support box up through the roof line. Galvanized pipe and elbows may be utilized in the attic, as well as above the roof line. The galvanized finish is desirable above the roof line, due to the higher corrosion resistance.

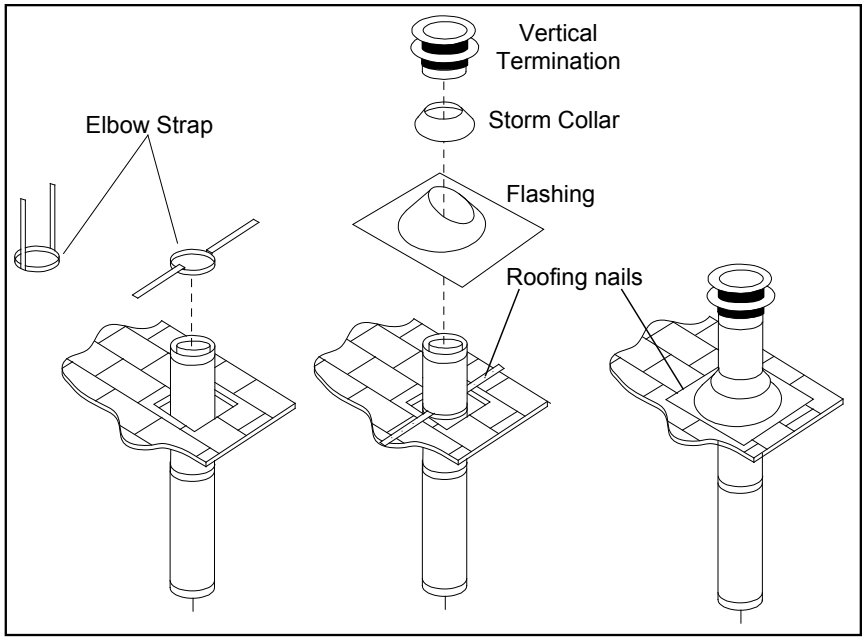


Figure 30: Vertical Vent Termination Installation.

6. Once the pipe sections have been joined, and run up through the hole in the roof, slip an elbow strap over the exposed sections, bend the support straps outwards, and push the elbow strap down to the roof level, as shown in Figure 30. Tighten the clamp around the pipe section. Use a level to make sure the pipe is truly vertical. With roofing nails, secure the

support straps to the roof. Seal the nails holes heads with non-hardening mastic. Trim the excess length of the support straps that extend out beyond the edge of the flashing.

7. Slip the flashing over the pipe section protruding through the roof. Secure the base of the flashing to the roof with roofing nails. Use a non-hardening sealant between the uphill edge of the flashing and the roof. Insure the roofing material overlaps the top edge of the flashing as shown in Figure 30. Verify that you have at least the minimum clearance to combustibles at the roof line.

8. Continue to add pipe sections until the height of the vent cap meets the minimum code requirements. Refer to Figure 31 and Table 6. Note that for steep roof pitches, the vent height must be increased. In high wind conditions, nearby trees, adjoining roof lines, steep pitched roofs, and other similar factors can result in poor draft, or down drafting. In these cases, increasing the vent height may solve the problem.

9. Slip the storm collar over the pipe, and push it down to the top of the roof flashing as shown in Figure 30. Use the non-hardening sealant around the joint between the pipe and the storm collar.

10. Twist-lock the vent cap.

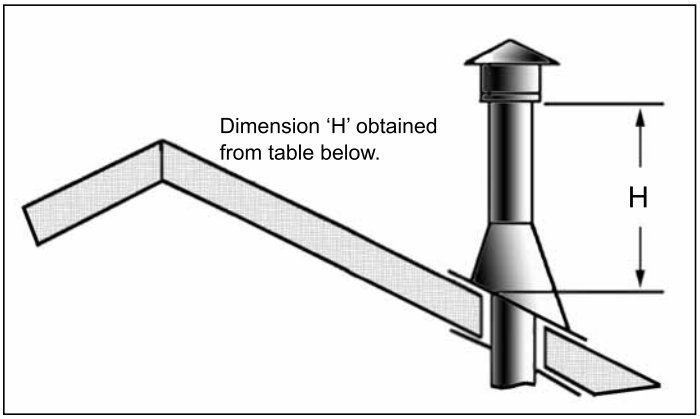


Figure 31: Height of Vertical Termination; Reference Table 6.

Table 6: Minimum 'H' for Figure 31.

Roof Pitch	Minimum Height	
	Ft	Meters
Flat to 7/12	1	0.3
Over 7/12 to 8/12	1.5	0.46
Over 8/12 to 9/12	2	0.61
Over 9/12 to 10/12	2.5	0.76
Over 10/12 to 11/12	3.25	0.99
Over 11/12 to 12/12	4	1.22
Over 12/12 to 14/12	5	1.52
Over 14/12 to 16/12	6	1.83
Over 16/12 to 18/12	7	2.13
Over 18/12 to 20/12	7.5	2.29
Over 20/12 to 21/12	8	2.44

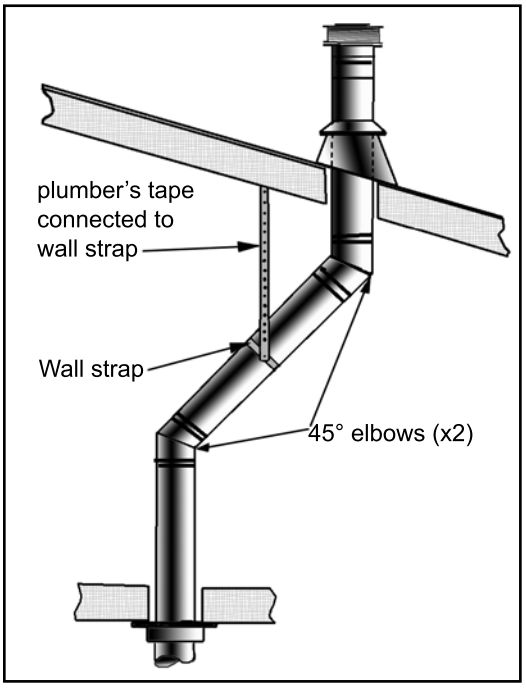


Figure 32: Use of Wall Straps.

NOTES:

- If an offset is necessary in the attic to avoid obstructions, it is important to support the vent pipe every 3 ft (91 cm), to avoid excessive stress on the elbows, and possible separation. Wall straps are available for this purpose (see Figure 32).
- When ever possible, use 45° degree elbows instead of 90° degree elbows. The 45° degree elbow offers less restriction to the flow of flue gases and intake air.

- For multi story installations. A ceiling firestop is required at the second floor, and any subsequent floors (see Figure 33). The opening should be framed to 10" (25.4 cm) x 10" (25.4 cm) inside dimensions, in the same manner as shown in Figure 29.
- Any occupied areas above the first floor, including closets and storage spaces, which the vertical vent passes through, must be enclosed. The enclosure may be framed and sheetrocked with standard building materials. However consult the appliance manufactures installation instructions for the minimum allowable clearance between the outside of the vent pipe, and the combustible surfaces of the enclosure. Do not fill any required air spaces with insulation.

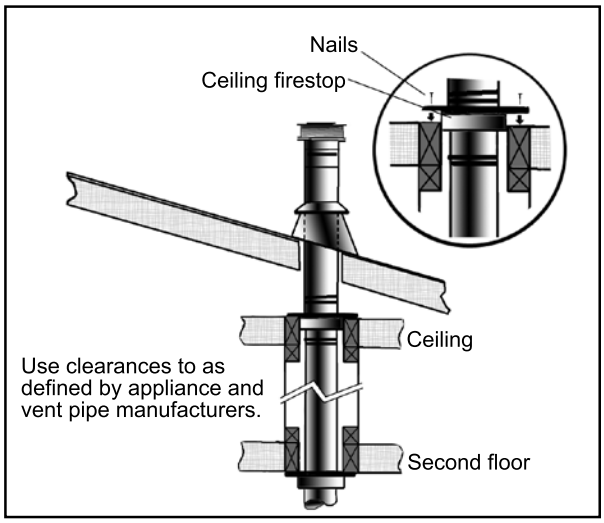


Figure 33: Multi-Story Vent Pipe Installation.

Cathedral Ceiling Installation:

1. Follow installation steps 1 & 2 from Initial Installation - Vertical Installation.

2. Using the plumb bob, mark the center line of the venting system on the ceiling and drill a small hole through the ceiling and roof at this point. From the roof, locate the drill hole and mark the outline of the Cathedral Ceiling Support Box.

3. Remove shingles or other roof coverings as necessary to cut the rectangular hole for the Support Box. Cut the hole ⅛" larger than the Support Box outline.

4. Lower the Support Box through the hole in the roof until the bottom of the Support Box protrudes at least 2 inches (5 cm) below the ceiling. Align the Support Box both vertically and horizontally with a level as shown in Figure 34. Temporarily tack the Support Box in the place through the inside walls and into the roof sheathing.

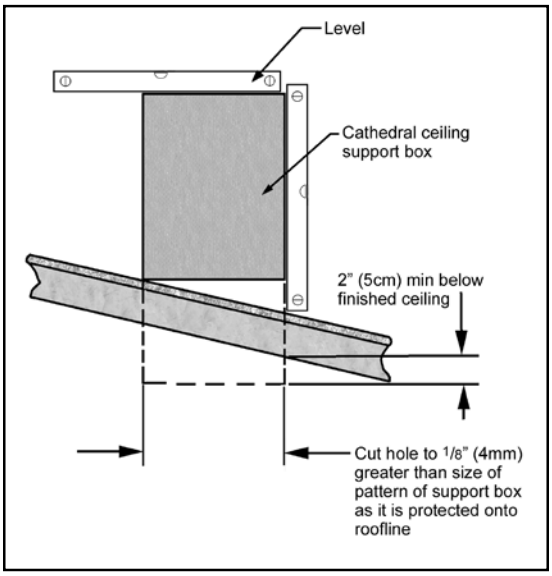

Level
Cathedral ceiling support box
2" (5cm) min below finished ceiling
Cut hole to 1/8" (4mm) greater than size of pattern of support box as it is protected onto roofline

Figure 34: Cathedral Ceiling Support Box Leveling.

5. Using tin snips, cut the Support Box from the top corners down to the roof line, and fold the resulting flaps over the roof sheathing (Figure 35). Before nailing it in to the roof, run a bead of non-hardening mastic around the top edges of the Support Box to make a seal between the box and the roof. Clean out any combustible material from the inside of the Support Box.

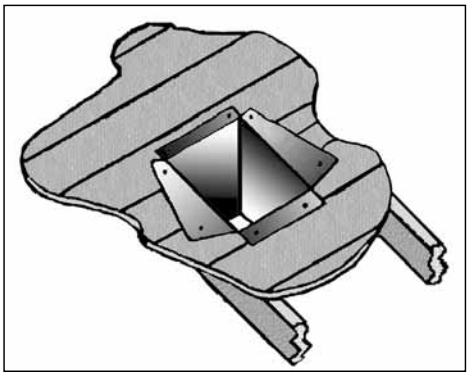


Figure 35: Cathedral Ceiling Support Box Installation.

6. Complete the cathedral ceiling installation by following the same procedures outlined in Steps 4 through 9 from Initial Installation - Vertical Installation.

Initial Installation

QUALIFIED INSTALLERS ONLY

Venting into a Class 'A' Chimney:

This model is also certified and tested to vent into CLASS 'A' wood stove chimneys.

Place the freestanding direct vent appliance in the desired location.

Use a conversion kit from Simpson Duravent (931, 932, or 933), or Security Chimney (SV4CCK1, SV4CCK2, or SV4CCK1). Which kit is used will depending on the inner diameter of the CLASS 'A' chimney that this appliance is to be vented into.

Place a bead of high temperature silicone or Mil-Pac at each connection to ensure a tight seal.

NOTE: An approved 4" (10 cm) diameter flex liner must be used in the application.

NOTE: Use Simpson Dura Vent from the top of the appliance until this vent reaches the CLASS 'A' chimney. Install the retro adapter to the top section of GS direct vent pipe and install the flex liner to the retro adapter.

Fully line the CLASS 'A' chimney with a minimum 4" (10 cm) flex liner to the top of the CLASS 'A' chimney.

Place a bead of high temperature silicone to the Simpson Cap adapter and securely attach the flex liner to the adapter.

Secure the cap adapter to the CLASS 'A' chimney ensuring an airtight seal.

Install the vertical termination cap.

Light the unit and ensure proper operation.

THE USE OF ANY EXISTING CHIMNEY AS AN AIR INTAKE IS NOT COVERED UNDER THE ANSI Z21.88-2002 CSA 2.33a-2002 TEST METHODS AND THE RESULTING ITS/WH PRODUCT CERTIFICATION. THE CODE AUTHORITY HAVING JURISDICTION MUST BE CONSULTED PRIOR TO PROCEEDING WITH THIS INSTALLATION METHOD.

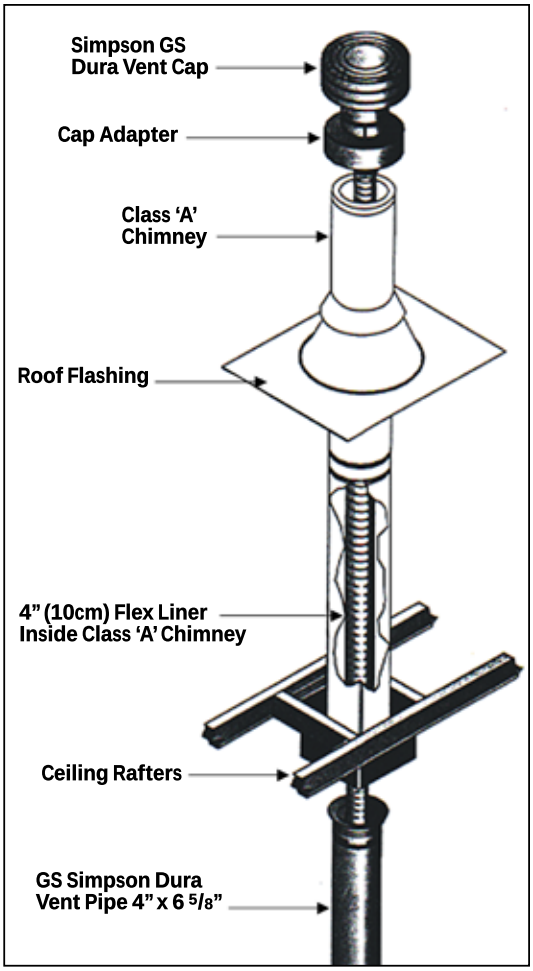


Figure 36: Assembly of Venting into a Class 'A' Chimney.

Initial Installation

QUALIFIED INSTALLERS ONLY

Electrical Requirements:

The **ENVIRO** EG28 will operate without electrical power. This model has a millivolt gas control, which uses the pilot flame to generate enough electricity to operate the main burners. The appliance is equipped with a blower and must be electrically connected and grounded in accordance with local codes or in the absence of local codes, with the current CSA C22.1 CANADIAN ELECTRICAL CODE Part 1, SAFETY STANDARDS FOR ELECTRICAL INSTALLATIONS, OR THE NATIONAL ELECTRICAL CODE ANSI / NFPA 70 in the U.S.

WARNING: Electrical grounding instructions. This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard, and must be plugged directly into a properly grounded three-prong outlet.

DO NOT cut or remove the grounding prong from this plug.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

NOTE:

- Operation of the fan increases the efficiency and the heat output of the appliance.
- The thermostat connects to the two purple wires in the harness
- Control panel light uses a 7 Watt max. bulb

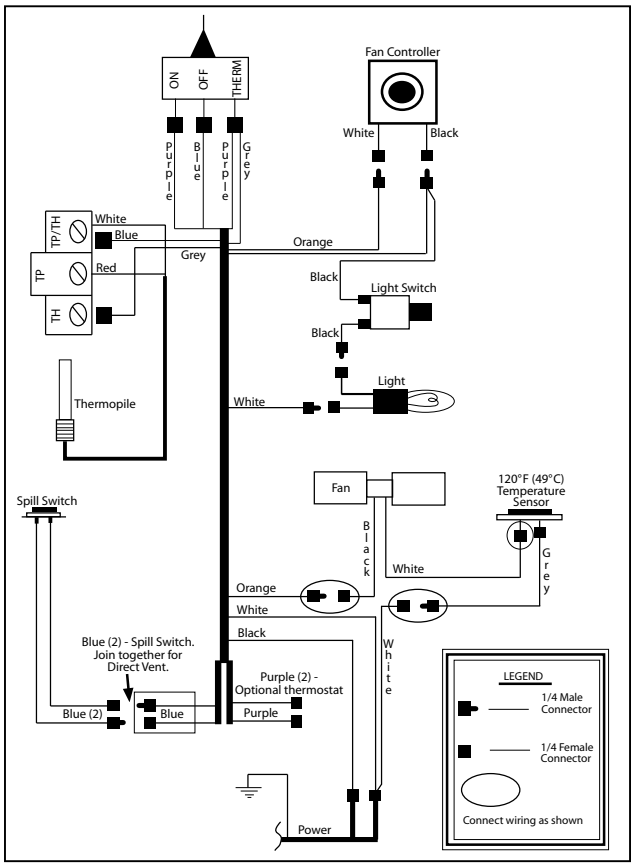


Figure 37: EG28 DV Wiring Diagram.

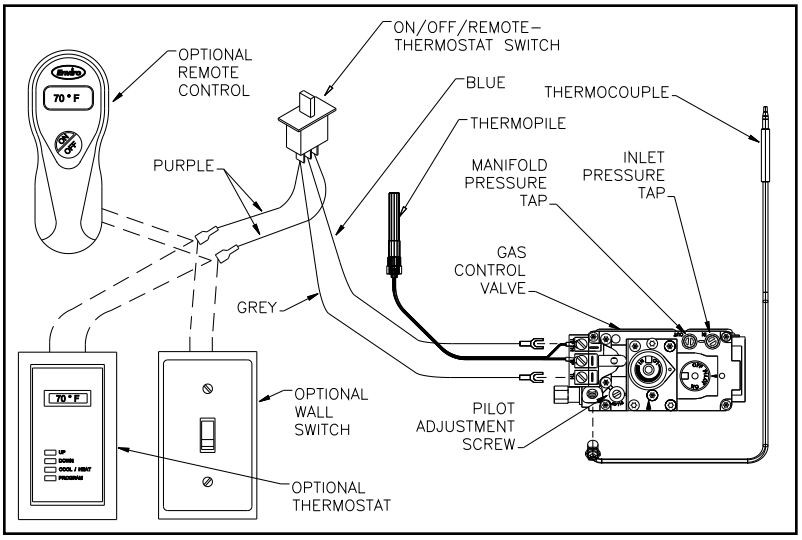


Figure 38: Wiring of a Thermostat

- **If the unit is installed in a Mobile Home it must be connected to a grounding rod.**
- **If the unit is installed in a Mobile Home it must be bolted securely to the floor.**

Table 7. Recommended Thermostat Wire Size.

Wire Size	Max. Length
14 gauge	100 ft (30.48 m)
16 gauge	60 ft (18.29 m)
18 gauge	40 ft (12.00 m)
20 gauge	25 ft (7.62 m)
22 gauge	18 ft (5.49 m)

Gas Line Connection and Testing:

WARNING: Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.

GAS LINE CONNECTION

- This stove is equipped with a certified flexible pipe located on the right side of the unit terminating in a ⅜" male NPT fitting. Consult your local authorities codes or the CAN/CGA B 149 (1 or 2) installation code in Canada, or in the USA gas installations follow either local codes or the current edition of the National Fuel Gas Code ANSI Z223.1.
- The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

The appliance and its shutoff valves must be disconnected from the gas supply piping system during any pressure testing where the pressure exceeds ½ PSIG (3.45 KPa) or damage will occur to the valve.

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.45 KPa).

Always check for gas leaks with a soap and water solution after completing the required pressure test.

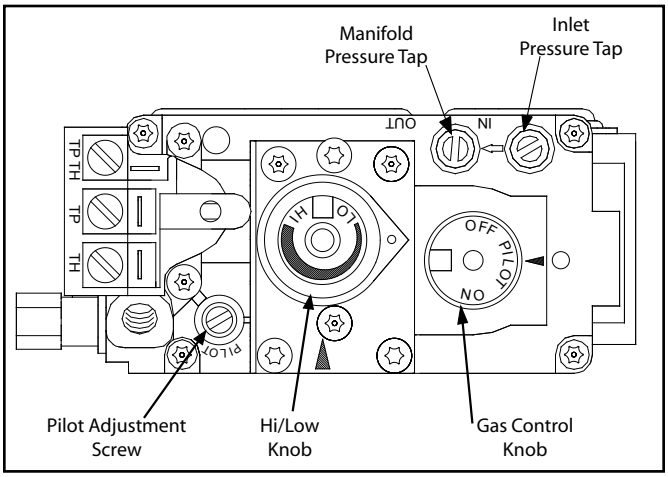


Figure 39: Fully Labeled Gas Valve.

TO TEST VALVE PRESSURES

The pressure taps are located on the left side of the valve
- Turn set screw 1 turn counter clockwise to loosen,
- Place 5/16" (8 mm) I.D. hose over pressure tap system.
- Check pressures using a manometer.
- When finished, release pressure, remove hose & tighten set screw.

Table 8: Pressure and BTU Information.

	Natural Gas	Propane
Main Orifice	#43 DMS	#53 DMS
Manifold Pressure	3.8" W.C. (0.95 KPa)	11.0" W.C. (2.74 KPa)
Min. Manifold Pressure	1.1" W.C. (0.27 KPa)	2.7" W.C. (0.67 KPa)
Max Supply Pressure	7.0" W.C. (1.74 KPa)	12.0" W.C. (2.98 KPa)
Min. Supply Pressure	5.0" W.C. (1.25 KPa)	11.5" W.C. (2.86 KPa)
Max BTU/hr Input	26,500 BTU/hr (7.87 KW)	26,500 BTU/hr (7.87 KW)
Min. BTU/hr Input	13,500 BTU/hr (3.9 KW)	13,500 BTU/hr (3.9 KW)

NEVER USE AN OPEN FLAME FOR LEAK TESTING.

Secondary Installation

Installation of Log Set and Embers:

The placement of the logs is not arbitrary. If they are positioned incorrectly, the flames can be "pinched" and will not burn correctly. The burner come with five (5) locator pins and two (2) resing areas, which make alignment easier. Using the pictures provided, carefully set the logs in place.

NOTE: The logs are fragile and should be handled gently.

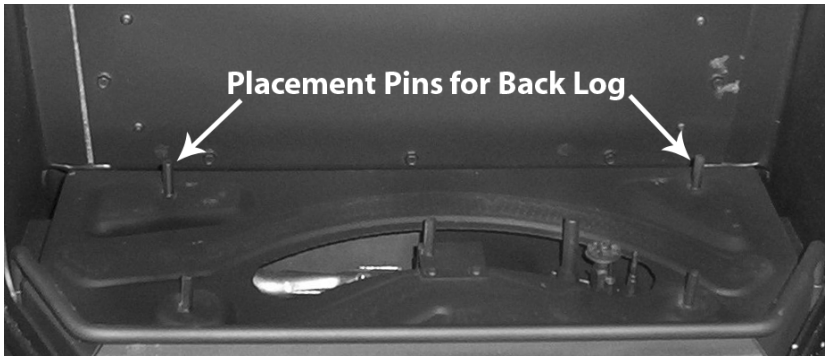


Figure 40: Step 1 of Log Placement.

Figure 41: Step 2 of Log Placement.

CAUTION: Use only the type of ember material supplied with this appliance. Due to the irregular size of the ember material there may be more than required. The use of other foreign materials on the burners may create dangerous conditions.

If over time, through cleaning and servicing, these embers require replacement, contact the nearest ENVIRO dealer for replacement embers.

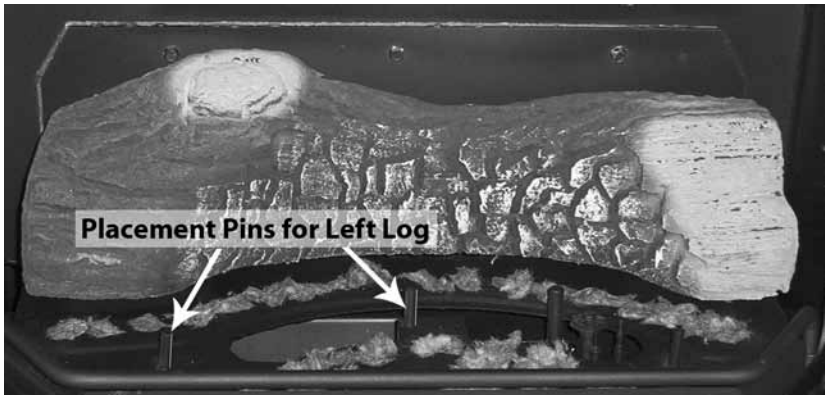


Figure 42: Step 3 of Log Placement.

1. The embers can be place before or after the logs are placed. A bag of ceramic fiber embers and rock wool embers is provided gently remove the ember material from the plastic bag. Spread a layer loosely in a random manner across the burner tray. Do not allow any embers to rest against pilot assembly. (See Figure 13 or 16 for proper ember placement.)

DO NOT pack this ember material as this could create an unsafe condition, leave embers loose

2. Carefully remove logs from box. Check to ensure there is no damage. It is very important to install all logs in their proper position to insure safe, optimum operating conditions.

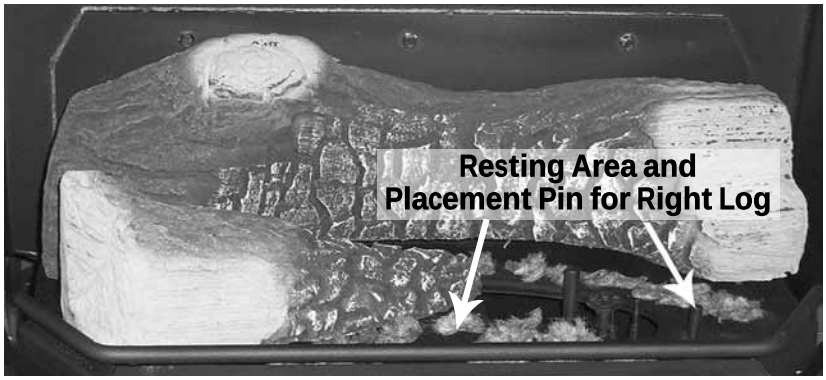


Figure 43: Step 4 of Log Placement.

3. Place the log set into the firebox. Locate each log by seating it down onto the burner tray support pins. Follow Figures 11 to 16 proper log placement.

4. Upon the first light up, watch for ignition to **ALL** burner ports. If a long delay is noted: First, wait for the appliance to cool down.

• Open the front door of the appliance.

• Check to carefully reposition the embers making sure that burner ports are not plugged solid or blocked.

Figure 44: Step 5 of Log Placement.

Figure 45: Log Placement with Embers.

Figure 46: Appliance Burning.

CAUTION: NEVER OPERATE THIS APPLIANCE WITH THE GLASS DOOR REMOVED.

Trouble Shooting

Problem	Possible Cause	Solution
The main burner does not ignite when called for.	The gas valve may not be on.	• Check that the gas control knob is in the "ON" position.
	Thermostat is not calling for heat.	• Adjust the thermostat several degrees above ambient temperature.
	Problem with gas valve.	• Use a DC voltmeter to measure the voltage across the TPTH and TP terminals. Main operator voltage: Open circuit ≥ 325mV Closed circuit ≥ 100mV • If voltage is not present, check the control circuit for proper operation. • If proper control system voltage is present, replace the gas control.
Spark will not light the pilot after repeatedly pressing the spark ignitor.	Defective piezo ignitor.	• Check connections to ignitor. • If ignitor connections are good but no spark, replace ignitor.
	Broken spark electrode.	• Check for broken ceramic insulation, replace electrode if broken.
	Misaligned spark electrode.	• If spark is not arcing from electrode to pilot, loosen the screws on the pilot base adjust and tighten.
Pilot will not remain lit.	Problem with thermocouple circuit.	• Check for proper connection of the thermocouple to the rear of the valve. If loose, fully tighten. • Check pilot for full flame impingement around thermocouple. If flame is too small, check gas pressure, adjust pilot rate screw, check pilot head for damage. • Check thermocouple voltage at valve. It must be greater than 5 mV. If low, replace thermocouple.
	Air in gas line (pilot dies while knob is depressed).	• Bleed line. • Check gas line pressure. • Contact dealer.
Burners will not remain lit.	Problem with thermopile circuit.	• Check gas line pressure . • Check for flame impingement on thermopile. If low, see "Pilot will not remain lit". • Check thermopile for minimum of 300 mV when burner is switched on. • Check wiring to thermostat for breaks.
Flame lifting	Leak in vent pipe	• Check for leaks in vent connections.
	Improper vent configuration	• Check vent configuration with manual.
	Terminal may be recirculating flue gases	• Check to see if terminal is on correctly. • May need to install high wind termination cap. • Contact dealer.
Glass fogs up	Normal Condition: after the appliance warms up the glass will clear. **Due to additives in gas, glass may get hazy during operation** Clean as needed.	
Blue Flames	Normal during start up: flames will yellow as the fireplace heats up.	
Flames are burning "dirty" or sooting	Flame impingement	• Check log positioning. • Increase primary air by opening the venturi shutter and/ or by opening the vent restrictor. See also "Burners will not remain lit."
Remote control doesn't work	Problem with the remote	• One or more of the batteries are dead. See remote control instructions.
	Problem with fireplace	• The on/off switch is turned to OFF. • The gas control valve is turned to PILOT or OFF. • The pilot has gone out.

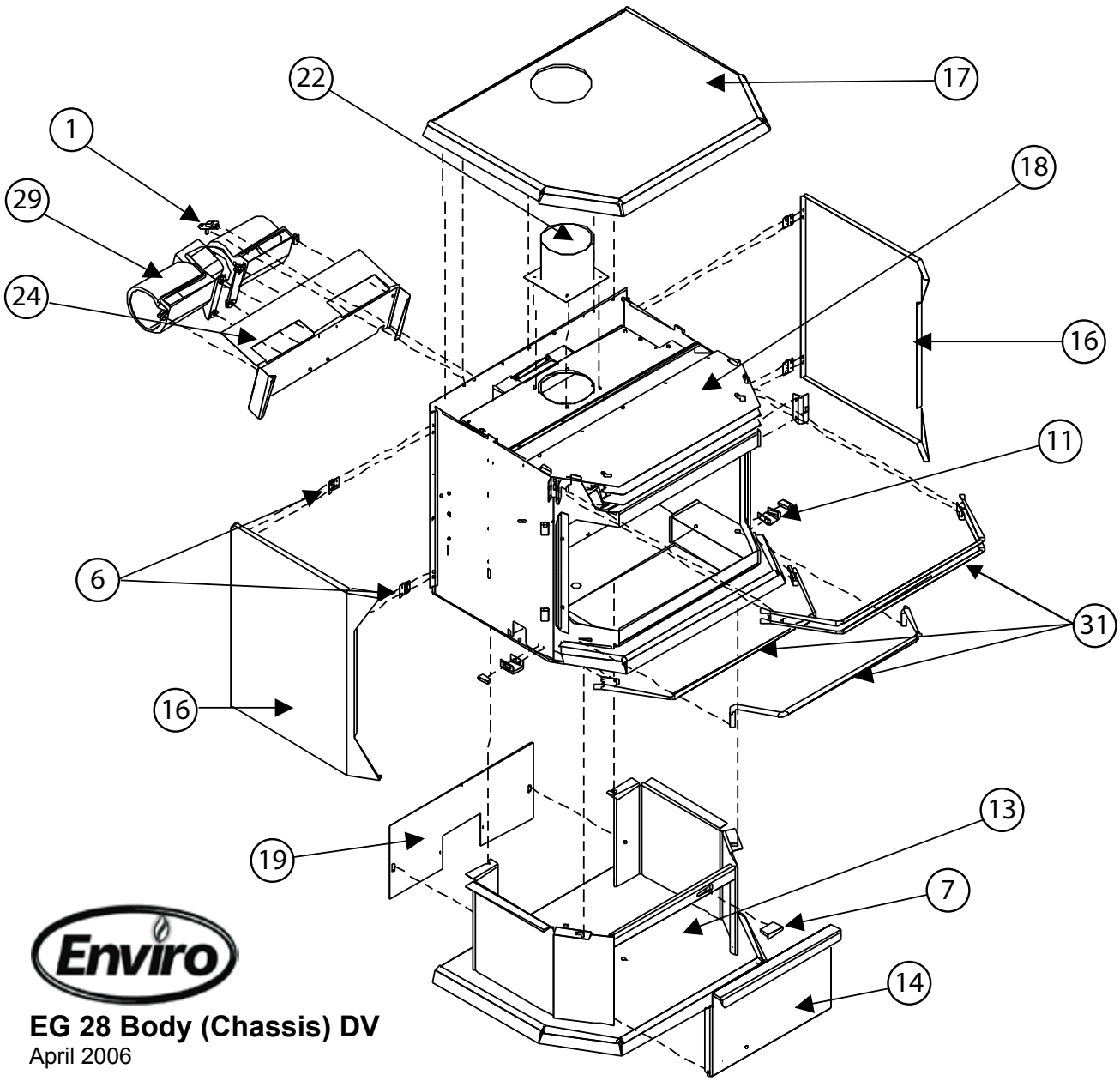
Parts List

Reference Number	Part Description	Part Number
1	120°F (49°C) Ceramic Temperature Sensor	EC-001
2	Thermocouple	EC-009
2	Spark Electrode with Cable	EC-011
2	Thermopile	EC-012
2	Pilot NG with Electrode	EC-013
2	Pilot LP with Electrode	EC-014
2	Fully Assembled Pilot NG	EC-015
2	Fully Assembled Pilot LP	EC-016
2	Pilot Orifice NG	EC-019
2	Pilot Orifice LP	EC-020
	Pilot Gasket	EC-021
3	S.I.T. Piezo Ignitor	EC-023
	Stainless Steel Flex Connector with 3/8” Elbow 18” Long	EC-024
4	Burner Switch	EC-025
	Fan Access Cover Gasket	EC-029
5	Miniature Light Bulb - 115V	EC-031
5	Light Bulb Holder	EC-032
	Wiring Harness Complete (2 pieces)	EC-037
	Burner Wiring Harness	EC-037A
	Body Wiring Harness	EC-037B
	Fan Controller Knob	EC-040
	IEC Power Cord - 115 V	EC-043
	4oz Bag Coal Embers Only	EC-045
	Log Set with Embers	EC-048
	Aluminum Manifold	EC-049
6	1” x 1” Side Cabinet Hinge	EC-054
7	Pedestal Door Magnet	EC-056
	3/8” Tadpole Door Gasket (7 feet)	EC-057
8	Door Latch Bolt	EC-059
	Simpson Dura Vent GS Adapter	EC-060
	DV Vent Kit with Coupler	EC-061
	Fan Impeller	EC-064
	Door Nut Mounting Bracket	EC-065
9	Light Switch	EC-066
	Vent Restrictor Ring	EC-067
10	Fan Controller with Knob - 115V	EF-045
11	Side Panel Magnet Bracket	EG28-027
	Envirogas EG28 Name Plate	EG28-076
	Latch Bracket and Nut	EG28-095
12	Complete Inner Door with Glass	EG28-103
13	Pedestal	EG28-108

Parts List

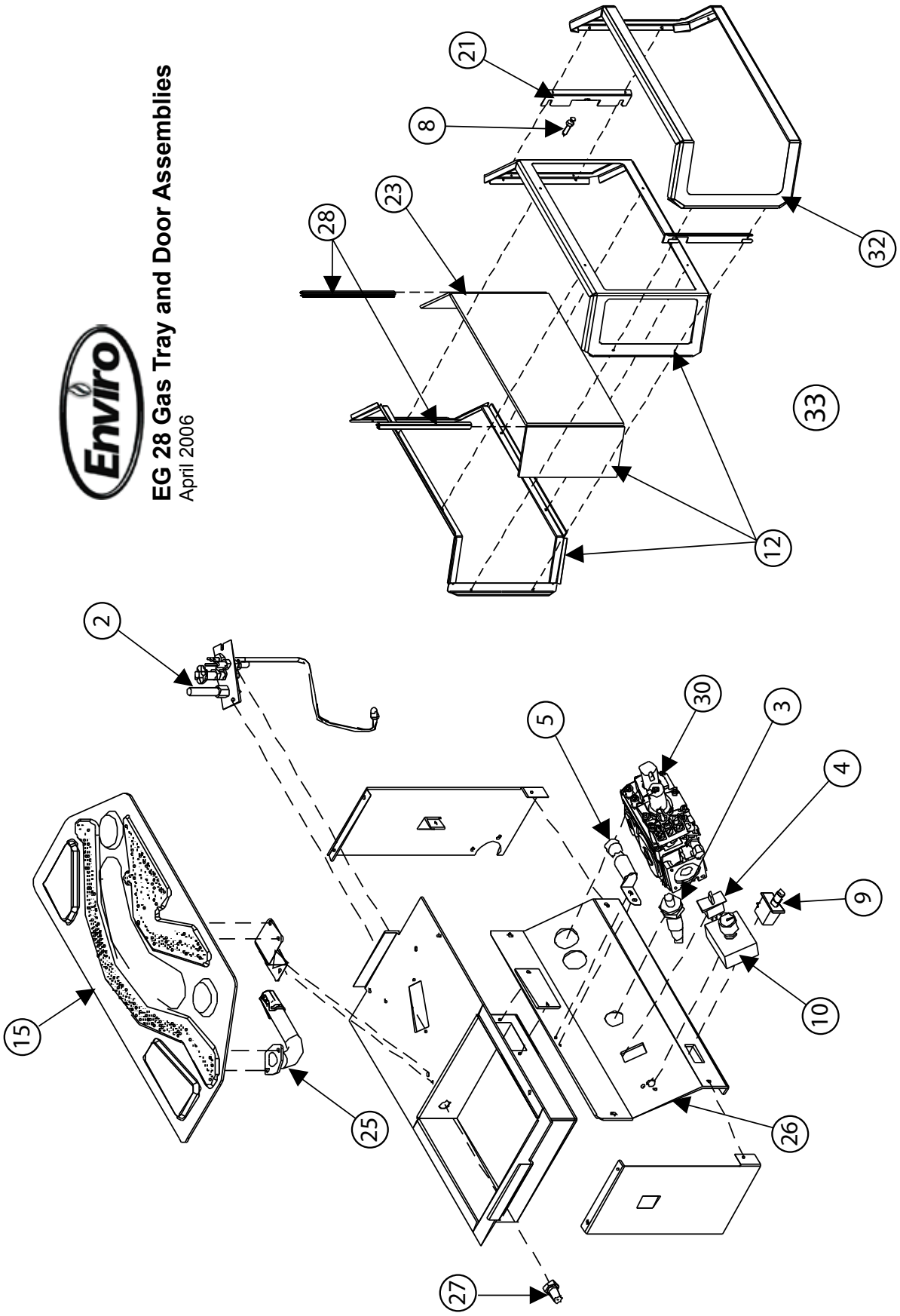
Reference Number	Part Description	Part Number
14	Pedestal Door	EG28-109
15	Burner Tray Top	EG28-116A
	DV Owner's Manual	EG28-120
16	Cabinet Side Panel	EG28-123
	Firebox Baffle	EG28-125
17	DV Stove Top	EG28-126
	Fan Kit	EG28-127
18	DV Top Baffle	EG28-131
	Pedestal Wiring Plate	EG28-140
19	Pedestal Back	EG28-141
20	Ash Shelf	EG28-150
	Door Hinge Bracket	EG28-161
21	Door Latch Bracket	EG28-162
22	DV 4" Flared Flue Pipe	EG28-170
	LP To NG Conversion Kit	EG28-201
	NG To LP Conversion Kit	EG28-203
23	Glass Set with Gasket	EG28-205
	Thermocouple Pilot Nut	EG28-210
24	Fan Mounting Bracket	EG28-304
25	Venturi	EG31-099
	Control Panel Decal	30-044
	Rear Exterior Back Panel	30-045
26	Control Panel Front and Decal	30-069
	Blower Mount Screws (4)	50-086
27	Blank Orifice #74	50-343
28	Glass Extrusions (set of 2)	50-483
29	Convection Blower - 115V (no mount)	50-512
	16" Ignitor Wire	50-652
30	S.I.T. NOVA Valve Convertible	50-1421
	Conversion Kit LP To NG Convertible	50-1430
	Conversion Kit NG To LP Convertible	50-1431
	S.I.T. Valve Conversion Screw with O-ring	50-1450
	S.I.T. Valve Conversion Screw Cap	50-1451
31	Bar Set (4 Pieces) - Painted	EG28-152
31	Bar Set (4 Pieces) - Gold	EG28-153
32	Door Cover - Gold	50-476
32	Door Cover - Painted	50-757
32	Door Cover - Brushed Nickel	50-1064
33	Door Assembly with Glass (A+B) - Brushed Nickel	50-1065
33	Door Assembly with Glass (A+B) - Painted	EG28-099
33	Door Assembly with Glass (A+B) - Gold	EG28-101

Parts Diagram - Chassis



EG 28 Body (Chassis) DV
April 2006

Parts Diagram - Gas Tray & Door



Warranty for Enviro **Gas** Products

Sherwood Industries Ltd. ("Sherwood") hereby warrants, subject to the terms and conditions herein set forth, this product against defects in material and workmanship during the specified warranty period starting from the date of original purchase at retail. In the event of a defect of material or workmanship during the specified warranty period, Sherwood reserves the right to make repairs or to assess the replacement of a defective product at Sherwood's factory. The shipping costs are to be paid by the consumer. All warranties by Sherwood are set forth herein and no claim shall be made against Sherwood on any oral warranty or representation.

Conditions

- A completed warranty registration must be submitted to Sherwood within 90 days of original purchase via the online warranty registration page or via the mail-in warranty registration card provided. Have the installer fill in the installation data sheet in the back of the manual for warranty and future reference.
- This warranty applies only to the original owner in the original location from date of install.
- The unit must have been properly installed by a qualified technician or installer, and must meet all local and national building code requirements.
- The warranty does not cover removal and re-installation costs.
- Sherwood Industries Ltd. reserves the right to make changes without notice.
- Sherwood Industries Ltd. and its employees or representatives will not assume any damages, either directly or indirectly caused by improper usage, operation, installation, servicing or maintenance of this appliance.
- A proof of original purchase must be provided by you or the dealer including serial number.

Exclusions

An expanded list of exclusions is available at www.enviro.com/help/warranty.html

This warranty does not cover:

- Damage as a result of improper usage or abuse.
- Damage caused from over-firing due to incorrect setup or tampering.
- Damage caused by incorrect installation.

To the Dealer

- Provide name, address and telephone number of purchaser and date of purchase.
- Provide date of purchase. Name of installer and dealer. Serial number of the appliance. Nature of complaint, defects or malfunction, description and part # of any parts replaced.
- Pictures or return of damaged or defective product may be required.

To the Distributor

- Sign and verify that work and information are correct.

Sherwood Industries Ltd.
6782 Oldfield Road, Victoria, BC . Canada V8M 2A3
Online warranty registration: www.enviro.com/warranty/

Category	One Year	Two Year	Limited Lifetime (7yr)
Parts [1] (unit serial number required)		✔	
Firebox Liner Panels (excluding porcelain)		Ceramic	Steel
Firebox			✔
Heat Exchanger			✔
Burner			✔
Ceramic Logs [2]			✔
Ceramic Glass [3]	✔		
Pedestal / Legs (excluding finish)			✔
Door Assembly			✔
Surround Panels (excluding finish)			✔
Exterior Panels (excluding finish)			Up to 5 years
Electrical Components		✔	
Exterior Surface Finishing [4]	✔		
Labour	✔		

[1] Whereas warranty has expired, replacement parts will be warrantied for 90 days from part purchase date. Labour not included. Unit serial number required.

[2] Log set and panels excludes wear and tear or breakage caused by cleaning or service.

[3] Glass is covered for thermal breakage. Photos of box, inside of door, and unit serial # must be supplied for breakage due to shipping.

[4] Exterior Surface finishing covers plating, enamel or paint and excludes colour changes, chipping, and fingerprints.

Travel costs not included.

Jan 2013

Installation Data Sheet

The following information must be recorded by the installer for warranty purposes and future reference.

NAME OF OWNER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

NAME OF DEALER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

MODEL:_____

SERIAL NUMBER:_____

DATE OF PURCHASE: _____ (dd/mm/yyyy)

DATE OF INSTALLATION:_____(dd/mm/yyyy)

☐ NATURAL GAS (NAT) ☐ PROPANE(LPG)

INLET GAS PRESSURE:_____in wc

MAIN BURNER ORIFICE:_____# DMS

PILOT ORIFICE #_____OR_____in diam.

INSTALLER'S SIGNATURE:

_____

NAME OF INSTALLER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

MANUFACTURED BY:
SHERWOOD INDUSTRIES LTD.
6782 OLDFIELD RD. SAANICHTON, BC, CANADA V8M 2A3
www.enviro.com
January 22, 2013
C-13840